

**FILED UNDER SEAL**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
SHERMAN DIVISION**

THE STATE OF TEXAS, et al,

Plaintiffs,

v.

GOOGLE LLC,

Defendant.

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§

Civil Action No. 4:20-cv-00957-SDJ

**GOOGLE LLC'S OMNIBUS  
MOTION TO EXCLUDE EXPERT TESTIMONY**

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Evidence provided by experts must be relevant, Fed. R. Evid. 402, not prejudicial, Fed. R. Evid. 403, and must meet the standards of Rule 702. This requires Plaintiffs to show by a preponderance of the evidence that their expert's testimony is helpful, Fed. R. Evid. 702(a), not evasive or non-responsive. Each expert's opinion must be supported by sufficient facts and data, *id.* at 702(b), and must apply reliable principles and methods, *id.* at 702(c), in a manner that fits the facts of the case, *id.* at 702(d). Because of the power and danger of expert testimony, this Court exercises greater control over the admission of expert testimony than lay witness testimony, acting as a gatekeeper to require a clear demonstration that these requirements are met before admitting expert evidence. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 595 (1993). For the reasons set forth below, the Court should exclude the testimony of several of Plaintiffs' experts in their entirety or, in some cases, in part.

These experts stray well beyond their areas of expertise, fail to ground their opinions in practices generally accepted within their fields, and offer opinions that are pure *ipse dixit*—all of which warrant exclusion. Often, and regrettably, Plaintiffs' experts have obfuscated, evaded, and refused to answer simple questions, depriving the Court of any fair basis to conclude their testimony would actually be helpful at trial. Some seek to testify to pure legal conclusions, usurping the role of the Court, or opine that Google's conduct was "deceptive" or "misleading," usurping the role of the jury on a matter where it requires no expert assistance at all. Many are pure advocates, serving as narrators for counsel's arguments and opining not based on their *own* investigations, and not based on any "specialized" education or abilities, *contra* Fed. R. Civ. P. 702, but rather repeating assumptions and unsubstantiated allegations provided them by counsel.

More fundamentally, many experts' opinions are simply not relevant under Rules 401 and 402, or should be excluded under Rule 403. In an effort to avoid carrying their burden to show the

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injury in fact required for Article III standing, and the individualized proof of harm required to obtain penalties under state deceptive trade practices acts (DTPA),<sup>1</sup> Plaintiffs' experts offer injury and harm-free opinions that must be excluded in their entirety.

First, to support their demand for billions of dollars in DTPA penalties against Google, Plaintiffs have erected a house of cards. Its foundation is the opinion of Plaintiffs' auction theory expert, Professor Matthew Weinberg, who builds on sand. He has no industry experience, yet he opines that Google's allegedly deceptive actions "impacted" the entirety of what he calls the "ad tech ecosystem"—each of [REDACTED] separate auctions. The professor admits, however, that he: (i) cannot identify any buyer or seller who was actually deceived, (ii) has no evidence that any buyer or seller participated in the so-called "ecosystem" based on any alleged nondisclosures or misrepresentation, and (iii) does not actually know how many auctions were affected by Google's algorithmic optimizations at issue here: Reserve Price Optimization (RPO), Dynamic Revenue Sharing (DRS), and Bernanke. In a rare moment of humility, Professor Weinberg then stops short of actually opining that Google committed *any* DTPA violations. Ex. 1 (Weinberg Depo. Tr.) 90:5-17, 90:18-91:4. As explained below, these opinions are irrelevant and unreliable.

Second, resting on that infirm foundation and relying on a "five-minute conversation" with Dr. Weinberg, the day before his report was due, *id.* at 103:18-105:23, 156:23-157:10, Plaintiffs' purported penalties expert, Mr. Jeffrey Andrien, attempts to build the walls of the house of cards. They cannot bear the weight of his conclusions. Most fundamentally, expert testimony suggesting dollar values for punitive remedies is inadmissible as a matter of law. Worse, Mr. Andrien supplants the 17 different DTPAs at issue, and the relevant legal standards governing the

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<sup>1</sup> While each state statute has a different name, we refer to the claims asserted in Count VI collectively as "DTPA" claims. Below, "DTPA MSJ" refer to Google's contemporaneously filed Motion for Summary Judgment on Plaintiffs' DTPA Claims.

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imposition of civil penalties under each, replacing that binding law with a single, three-factor test that does not reflect the law of any Plaintiff State. Mr. Andrien also rests his opinion entirely on Dr. Weinberg's "claim"<sup>2</sup> that *all* [REDACTED] of Google's auctions were somehow "indirectly" tainted by undisclosed optimizations. From those unsupportable assumptions, Mr. Andrien sponsors a free-floating civil penalty of more than \$20 billion, reflecting what he, subjectively and without any testable basis, intuitively is big enough to "deter" Google without being "too big." But not only is deterrence not a relevant factor under many of the statutes at issue here, Mr. Andrien's "analysis" is unsupported *ipse dixit*. It cannot stand without those of Dr. Weinberg's opinions that must be excluded for the reasons set out above, and even with them, Mr. Andrien traces no discernible path from the alleged deception to any dollar figure. His opinions must be excluded as unreliable, irrelevant to prove any fact of consequence, and enormously prejudicial. To make matters worse, Google was unable to test or explore much of Mr. Andrien's "analysis" because in his deposition, he was evasive, argumentative, and nonresponsive. This, too, warrants exclusion of his testimony (or, at a minimum, a live *Daubert* hearing).

As the late-installed roof of their penalty house of cards, Plaintiffs offer the opinion of Dr. David DeRamus, a purported rebuttal expert. Dr. DeRamus is not a rebuttal expert at all: He offers an independent, affirmative opinion trying to justify even *larger* penalties against Google. If Dr. DeRamus's opinion is not excluded as untimely,<sup>3</sup> it should be excluded as irrelevant, unreliable, and prejudicial. His penalty opinion—which ranges upward to ***more than \$120 billion***—is *not* affected by the number of DTPA violations that might actually be found at trial. Ex. 14 (DeRamus Rpt.) ¶ 94. Like Mr. Andrien, Dr. DeRamus focused on deterrence, to the exclusion of the factors

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<sup>2</sup> See Ex. 1 (Weinberg Depo. Tr.) 144:8-145:5 (describing what he "claims" about Google's ad tech "Ecosystem").

<sup>3</sup> See ECF No. 613 (Motion to Strike).



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actually relevant to each State’s DTPA. Worse, in arriving at his deterrence amount, Dr. DeRamus measures the wrong thing. The law and the Constitution allow penalties to be imposed based only on Google’s unlawful actions, if any.<sup>4</sup> Dr. DeRamus bases his penalty demand on profits purportedly derived not from misrepresentations or omissions, but from the algorithmic optimizations themselves (which no one contends to have been illegal), and—worse yet—what he claims it would take to cause a decline in the price of the stock of Google’s parent company, *Alphabet, Inc.*, a non-party. For these and other reasons, Dr. DeRamus’s “calculations” of civil penalties must be excluded.

Plaintiffs’ other experts offer opinions that are similarly flawed. Professor John Chandler is an online marketing consultant who offers personal preferences about optimal levels of fairness and transparency, not expert opinions about the facts of this case. Professor Zubair Shafiq, an improperly designated rebuttal expert, is a computer scientist who seeks to opine on consumer privacy preferences, an area outside his professed expertise. Dr. Parag Pathak, a credentialed economist, offers irrelevant opinions about whether the ad tech market “functions well” and has sufficient “transparency.” But Google has no legal duty to design an ideal market, and transparency is not an element of any State’s DTPA or antitrust claims. Professor Cynthia Rudin speculates that ad buyers or ad sellers *might* have used machine learning to improve their advertising strategies *if* they had additional information, but fails to provide any analysis of *actual* impact in *actual* auctions. Her opinions are inadmissible *ipse dixit* as she has no reliable methodology to apply her theoretical, speculative opinions to the facts of this case. Dr. Anil Somayaji (another improper rebuttal expert, *see* ECF No. 613) opines that Google had a purported “information advantage”

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<sup>4</sup> *See, e.g.,* Tex. Civ. Prac. & Rem. Code 17.47(g) (allowing penalty to be determined based, among other things, on “the economic effect on the *person against whom the penalty is to be assessed*” and the “gravity of any *prohibited* acted or practice”).

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that prevented buyers or sellers from improving their advertising strategies, but has no reliable methodology to support that conclusion. He does not analyze whether any of the alleged information at issue is relevant to auction outcomes, nor even attempt to analyze the actual impact of any such “advantage” on advertisers or publishers. Finally, ignoring the requirements of Rule 702, Dr. Gans acknowledges the appropriate and reliable methodologies he should use to define relevant markets and calculate market shares, but in several instances fails to actually apply them.

For the reasons stated below, Google moves to exclude the opinions of the following of Plaintiffs’ experts, in whole or in part: Matthew Weinberg, Jeffrey Andrien, David DeRamus, John Chandler, Zubair Shafiq, Parag Pathak, Cynthia Rudin, Anil Somayaji, and Joshua Gans.

**I. Legal Standards**

As with all evidence, the proponent of expert testimony bears the burden to show “by a preponderance of the evidence,” *Bourjaily v. United States*, 483 U.S. 171, 175-77 (1987) (citing Fed. R. Evid. 104), that the evidence offered is relevant, *see* Fed. R. Evid. 401, 402, and that admissibility requirements are satisfied, *Daubert*, 509 U.S. at 592 n.10 (citing *Bourjaily*, 481 U.S. at 175-76).

Under Rule 702, “A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if the proponent demonstrates to the court that it is more likely than not that:

- (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert’s opinion reflects a reliable application of the principles and methods to the facts of the case.”

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The Court may also exclude evidence, including expert opinion testimony, “if its probative value is substantially outweighed by a danger of ... unfair prejudice, confusing the issues, [or] misleading the jury,” among other factors. Fed. R. Evid. 403.

The Court’s “gate-keeping obligation applies to all types of expert testimony, not just scientific testimony.” *Pipitone v. Biomatrix, Inc.*, 288 F.3d 239, 244 (5th Cir. 2002); *see also, e.g., Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997) (“Whether the expert would opine on economic valuation, advertising psychology, or engineering, application of the *Daubert* factors is germane to evaluating whether the expert is a hired gun or a person whose opinion in the courtroom will withstand the same scrutiny that it would among his professional peers.”).

Several of these principles are important here. The expert opinion evidence Plaintiffs seek to offer is not relevant, does not meet the requirements of Rule 702, or must be excluded because it risks unfairly prejudicing the defense, confusing the issues, or misleading the jury.

**A. Expert Testimony Must Be Relevant and Helpful To The Jury.**

The testimony of any witness, including an expert witness, must first be **relevant**. *See* Fed. R. Evid. 402. “Evidence is relevant if: (a) it has any tendency to make a fact more or less probable than it would be without the evidence; **and** (b) the fact is of consequence in determining the action.” Fed. R. Evid. 401. As to an expert, proof of relevance requires an additional showing that “the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702(a); *see also Mathis v. Exxon Corp.*, 302 F.3d 448, 460 (5th Cir. 2002) (same). Testimony that is not relevant should be excluded. *See* Fed. R. Evid. 402; *Daubert*, 509 U.S. at 591 (“Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.”).<sup>5</sup>

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<sup>5</sup> Unless otherwise indicated, emphasis is added, citations have been omitted, and quotations have been cleaned up for ease of reading.

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To assess relevance, the Court must determine whether the expert’s opinion “fits” with the other evidence and the ultimate questions the jury will have to decide. “Fit” asks “whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute.” *Daubert*, 509 U.S. at 591 (quoting *United States v. Downing*, 753 F.2d 1224, 1242 (3d Cir. 1985)). “Rule 702’s ‘helpfulness’ standard requires a *valid scientific connection to the pertinent inquiry* as a precondition to admissibility.” *Id.* at 591-92. That an expert, even one who is qualified, possesses an opinion does not carry the burden to prove the opinion is relevant or admissible. A study of phases of the moon might be relevant to assess whether the night was dark, if that was an issue for the jury to decide, but such testimony would not “fit” and would not assist the trier of fact in determining whether an individual was likely to have behaved irrationally on that night. *Id.*

**B. The Court May Exclude Even Relevant Evidence If It Would Create Unfair Prejudice, Confuse the Issues, Or Mislead The Jury.**

Rule 403 allows the Court to exclude even relevant evidence where its probative value is substantially outweighed by “a danger of ... unfair prejudice, confusing the issues, [or] misleading the jury.” Because “[e]xpert evidence can be both powerful and quite misleading,” when the Court weighs these factors it “exercises more control over experts than over lay witnesses.” *Daubert*, 509 U.S. at 595; *see also Nimely v. City of New York*, 414 F.3d 381, 397 (2d Cir. 2005) (“[T]he Supreme Court ... has noted the uniquely important role that Rule 403 has to play in a district court’s scrutiny of expert testimony, given the unique weight such evidence may have in a jury’s deliberations.”); *EEOC v. Mod. Grp., Ltd.*, 2024 WL 1290450, at \*13 (E.D. Tex. Mar. 25, 2024) (“The Court scrutinizes proposed expert testimony more searchingly than lay witness testimony for its pertinency and potential prejudice.”) (quoting *Nucor Corp. v. Requenez*, 578 F. Supp. 3d 873, 888 (S.D. Tex. 2022)).

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Applying these standards, courts regularly “exclude expert testimony when it relies on an incorrect legal standard.” *YETI Coolers, LLC v. RTIC Coolers, LLC*, 2017 WL 429210, at \*2 (W.D. Tex. Jan. 28, 2017). Testimony that “relies on an incorrect legal standard” is irrelevant and “would confuse and mislead the jury.” *KB Home v. Antares Homes, Ltd.*, 2007 WL 1893370, at \*9 (N.D. Tex. June 28, 2007).<sup>6</sup>

**C. Proffered Experts Must Be Qualified, And Testimony Must Be Limited to Their Areas Of Expertise.**

Rule 702 also requires a showing that the expert is qualified to give the testimony he or she proposes to give. Fed. R. Evid. 702(a).<sup>7</sup> An expert must be “qualified to give opinions in the areas covered in his testimony” and may not opine “outside his area of expertise.” *Eiland v. Westinghouse Elec. Corp.*, 58 F.3d 176, 180 (5th Cir. 1995); *see also, e.g., Smith v. Goodyear Tire & Rubber Co.*, 495 F.3d 224, 226 (5th Cir. 2007) (affirming trial court’s conclusion that expert in polymer science was not qualified to testify about whether a tire was defective). “A district court should refuse to allow an expert witness to testify if it finds that the witness is not qualified to testify in a particular field or on a given subject.” *United States v. Cooks*, 589 F.3d 173, 179 (5th Cir. 2009) (citing *Wilson v. Woods*, 163 F.3d 935, 937 (5th Cir. 1999)). Before testimony is

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<sup>6</sup> *See also Berhow v. The Peoples Bank*, 2006 WL 839529, at \*4-5 (S.D. Miss. Mar. 28, 2006) (excluding, as irrelevant, expert banking witness for applying his own definition of the relevant standard of care, where state statute “applies to the facts in this case”); *Roussell v. Brinker Int’l, Inc.*, 2008 WL 2714079, at \*27 (S.D. Tex. July 9, 2008) (excluding expert testimony “based on an incorrect legal standard” due to “substantial risk that his testimony will confuse the issues”); *Douglas v. Chem Carriers Towing, LLC*, 431 F. Supp. 3d 830, 836 (E.D. La. 2019) (excluding expert testimony as “misleading and unreliable” because it “cites to a hodgepodge of standards,” but the expert “does not demonstrate why they apply”).

<sup>7</sup> *See also, e.g., Daubert*, 509 U.S. at 588; *Kim v. Am. Honda Motor Co., Inc.*, 86 F.4th 150, 160 (5th Cir. 2023) (“Parties offering expert testimony must prove the expert is qualified and will offer relevant and reliable testimony.”); *United States v. Wilson*, 408 F. App’x 798, 808 (5th Cir. 2010) (“Before a district court allows a witness to testify as an expert, it must be assured the proffered witness is qualified by virtue of his knowledge, skill, experience, training or education.”).

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admitted, the court must “make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Pipitone*, 288 F.3d at 244 (quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999)).

**D. An Expert’s Opinions Must Have a Reliable Foundation.**

Trial courts must make “a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” *Burleson v. Tex. Dep’t of Crim. Justice*, 393 F.3d 577, 583–84 (5th Cir. 2004) (quoting *Daubert*, 509 U.S. at 592–93); *see also, e.g., Moore v. Ashland Chem. Inc.*, 151 F.3d 269, 276 (5th Cir. 1998) (citing *Daubert*, 509 U.S. 597); *In re: Taxotere (Docetaxel) Prods. Liab. Litig.*, 26 F.4th 256, 268 (5th Cir. 2022) (excluding improper expert testimony and noting Rule 702 “protect[s] juries from unreliable and irrelevant expert testimony”). “The reliability analysis applies to all aspects of an expert’s testimony: the methodology, the facts underlying the expert’s opinion, the link between the facts and the conclusion,” and so on. *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 355 (5th Cir. 2007) (quoting *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 155 (3d Cir. 1999)). This requirement also applies to “all types of expert testimony, not just scientific testimony.” *Skidmore v. Precision Printing & Pkg., Inc.*, 188 F.3d 606, 617–18 (5th Cir. 1999).

At a minimum, an expert must explain how the expert’s “experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts when the expert is relying solely or primarily on experience.” *Vera v. State Auto Ins. Co.*, 2023 WL 4060196, at \*3 (E.D. Tex. May 12, 2023); *see also Watkins*, 121 F.3d at 991 (explaining that an expert relying on “practical experience” cannot “escape screening by the district court simply by stating that their conclusions were not reached by any particular

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method or technique”). A basis in “sufficient facts and a reliable methodology is in all instances mandatory.” *Hathaway v. Bazany*, 507 F.3d 312, 318 (5th Cir. 2007).

The expert’s *ipse dixit*, or “because I said so,” is not enough to admit the opinion. “Without more than credentials and a subjective opinion, an expert’s testimony that ‘it is so’ is not admissible.” *Hathaway*, 507 F.3d at 318 (quoting *Viterbo v. Dow Chem. Co.*, 826 F.2d 420, 424 (5th Cir. 1987)); *see also* Black’s Law Dictionary (12th ed. 2024) (defining *ipse dixit*). As the Supreme Court has explained:

[C]onclusions and methodology are not entirely distinct from one another. Trained experts commonly extrapolate from existing data. But nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude there is simply too great an analytical gap between the data and the opinion proffered.

*Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997).<sup>8</sup> In sum, an expert opinion that “offers nothing more than [an] unsupported conclusion” should not be admitted. *Boyd v. State Farm Ins.*, 158 F.3d 326, 331 (5th Cir. 1998);<sup>9</sup> *see also Thomas v. PFG Transco, Inc.*, 501 F. Supp. 3d 437, 443 (E.D. Tex. 2020) (quoting *Gen. Elec.*, 522 U.S. at 146).

Factors relevant to assessing reliability include “(1) whether the expert’s theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer

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<sup>8</sup> Numerous cases confirm this fundamental principle. *See, e.g., McManaway v. KBR, Inc.*, 852 F.3d 444, 449 (5th Cir. 2017); *In re Complaint of C.F. Bean L.L.C.*, 841 F.3d 365, 370–71 (5th Cir. 2016); *Brown v. Illinois Cent. R. Co.*, 705 F.3d 531, 537 (5th Cir. 2013); *Johnson v. Arkema, Inc.*, 685 F.3d 452, 460–61 (5th Cir. 2012); *Whitehouse Hotel Ltd. P’ship v. C.I.R.*, 615 F.3d 321, 332 (5th Cir. 2010); *Guile v. United States*, 422 F.3d 221, 227 (5th Cir. 2005).

<sup>9</sup> *See also, e.g., Hathaway*, 507 F.3d at 318 (affirming exclusion of testimony that “offers little more than personal assurances based on [witness’s] experience that his conclusions are so”); *Viterbo*, 826 F.2d at 422 (“If an opinion is fundamentally unsupported, then it offers no expert assistance to the jury.”); *Slaughter v. S. Talc Co.*, 919 F.2d 304, 307 (5th Cir. 1990) (Expert opinions that are “nothing more than bare conclusions” are inadmissible because they are of “no value to the trier of fact.”).



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review and publication; (3) the known or potential rate of error of the challenged method; and (4) whether the theory or technique is generally accepted in the relevant scientific community.” *Kim v. Am. Honda Motor Co., Inc.*, 86 F.4th 150, 160 (5th Cir. 2023). If an expert’s opinion is based on “insufficient information,” the expert’s analysis is unreliable and should be excluded. *Paz v. Brush Engineered Materials, Inc.*, 555 F.3d 383, 388 (5th Cir. 2009). Nor should the Court admit expert opinion testimony that relies on “supposition,” “speculative premises,” “unsupported conjectures,” or “supposed facts not in the record.” *Hathaway*, 507 F.3d at 318–19; *see also, e.g., Guillory v. Domtar Indus. Inc.*, 95 F.3d 1320, 1331 (5th Cir. 1996) (affirming exclusion of expert opinions reliant on “altered facts and speculation”); *Meadours v. Ermel*, 2008 WL 7071456, at \*1 (S.D. Tex. Dec. 8, 2008) (A party may not present “wholly speculative conclusions masquerading as expert testimony.”). And when testimony is based primarily on “personal observations, professional experience, education, and training,” rather than a scientific methodology, the trial court must take particular care to “probe into the reliability of these bases when determining whether the testimony should be admitted.” *Pipitone*, 288 F.3d at 247.

**E. Expert Testimony Cannot Consist of Legal Argument Or Opinions.**

Expert testimony must not only fit the evidence; it must also address a proper subject of expert opinions. It is “well established that an expert may not render conclusions of law.” *Roe v. Patterson*, 2022 WL 987814, at \*2 (E.D. Tex. Mar. 31, 2022) (collecting cases).<sup>10</sup> In the Fifth

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<sup>10</sup> *See also, e.g., Greger v. C.R. Bard, Inc.*, 2021 WL 3855474, at \*10 (E.D. Tex. Aug. 30, 2021) (“[A]n expert witness is not permitted to offer conclusions of law.”) (quoting *United States v. Oti*, 872 F.3d 678, 691 (5th Cir. 2017)); *Bradford v. Walmart Stores Texas, L.L.C.*, 2024 WL 658967, at \*2 n.1 (5th Cir. Feb. 16, 2024) (“Federal Rule of Evidence 704 ‘does not allow a witness to give legal conclusions.’”) (quoting *Nat’l Oilwell Varco, L.P. v. Auto-Dril, Inc.*, 68 F.4th 206, 221 (5th Cir. 2023)); *United States v. Williams*, 343 F.3d 423, 435 (5th Cir. 2003) (Rule 704(a) “prohibits any witness, expert or lay, from testifying to a legal conclusion”); *C.P. Interests, Inc. v. Cal. Pools, Inc.*, 238 F.3d 690, 697 (5th Cir. 2001) (The federal rules do not “permit[] expert witnesses to offer conclusions of law.”).



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Circuit, as in most other courts, expert opinions are “confined to questions of fact as ‘an expert may *never* render conclusions of law.’” *Reitz v. Woods*, 85 F.4th 780, 788 (5th Cir. 2023) (quoting *Goodman v. Harris County*, 571 F.3d 388, 399 (5th Cir. 2009)) (emphasis original). “Although Rule 704 permits expert witnesses to offer testimony as to ultimate issues of fact, an expert may not offer opinions that amount to legal conclusions.” *Modern Grp. Ltd.*, 2024 WL 1290450, at \*12 (collecting cases).

Legal opinion testimony is impermissible because it “invade[s] the court’s province,” *Reitz*, 85 F.4th at 788 (quoting *Owen v. Kerr-McGee Corp.*, 698 F.2d 236, 240 (5th Cir. 1983)), or addresses issues “more properly left to judges and juries,” *id.* (quoting *Orthopedic & Sports Injury Clinic v. Wang Labs., Inc.*, 922 F.2d 220, 225 (5th Cir. 1991)); *see also, e.g., Lofton v. McNeil Consumer & Specialty Pharms.*, 2008 WL 4878066, at \*6 (N.D. Tex. July 25, 2008), *aff’d* 672 F.3d 372 (5th Cir. 2012) (excluding expert testimony that would “supplant[] the roles of counsel in making argument at trial and the role of the jury in interpreting the evidence”).

An expert is also barred from telling the jury how it should decide the questions before it. “It is not for [the expert] to tell the trier of fact what to decide.” *Est. of Sowell v. United States*, 198 F.3d 169, 171 (5th Cir. 1999) (quoting *Askanase v. Fatjo*, 130 F.3d 657, 673 (5th Cir. 1997)).

Allowing such testimony would create multiple problems:

First, the jury would be very susceptible to adopting the expert’s conclusion rather [than] making its own decision. There is a certain mystique about the word “expert” and once the jury hears of the attorney’s experience and expertise, it might think the witness even more reliable than the judge. Second, if an expert witness were allowed to testify to legal questions, each party would find an expert who would state the law in the light most favorable to its position. Such differing opinions as to what the law is would only confuse the jury.

*Roe*, 2022 WL 987814, at \*2 (quoting *Askanase*, 130 F.3d at 673).

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Because an expert is a witness, not an advocate for one side, the expert may not offer testimony that merely reiterates what “the lawyers can offer in argument.” *Salas v. Carpenter*, 980 F.2d 299, 305 (5th Cir. 1992); *see also, e.g., In re Air Crash at New Orleans*, 795 F.2d 1230, 1233 (5th Cir. 1986) (“[T]he trial judge ought to insist that a proffered expert bring to the jury more than the lawyers can offer in argument.”). “Expert testimony is an improper mechanism for offering legal arguments” because it would be “unfair” to award either party’s legal arguments “the elevated stamp of expert.” *Fisher v. Halliburton*, 2009 WL 5216949, at \*2 (S.D. Tex. Dec. 21, 2009) (quoting *Sparton Corp. v. U.S.*, 77 Fed. Cl. 1, 9 (2007)).

Similarly, experts may not testify to issues the jury is fully capable of evaluating on its own, such as fraud, deception, or the adequacy of disclosures. *See, e.g., Tisdale v. Marquette Transp. Co., LLC*, 2024 WL 2033933, at \*5 (E.D. La. May 7, 2024) (rejecting expert’s testimony that “offer[ed] the jury his interpretation of a document”); *Samuel v. Signal Int’l L.L.C.*, 2015 WL 12748648, at \*14 (E.D. Tex. Feb. 6, 2015) (“Whether [defendant] committed fraud or engaged in deceptive practices is something the jury can readily evaluate on their own after hearing the evidence—there is no need for expert testimony on this point.”); *Blythe v. Bumbo Int’l Trust*, 2013 WL 6190284, at \*4 (S.D. Tex. Nov. 26, 2013) (The “adequacy of warnings—whether they give reasonable notice of dangers to consumers” is “not an issue for which ... specialized knowledge is needed.”). An expert may not testify to an opinion if the “field of her expertise ... puts her in no better position” to address an issue than the jurors. *Robroy Indus.-Texas LLC v. Thomas & Betts Corp.*, 2017 WL 1319553, at \*10 (E.D. Tex. Apr. 10, 2017).

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These principles preclude expert testimony on questions relevant here, including what the applicable law requires,<sup>11</sup> whether conduct conformed to a particular legal standard,<sup>12</sup> whether an allegedly misleading statement was material,<sup>13</sup> and whether conduct was reasonable or justified as a matter of law.<sup>14</sup> In such circumstances, courts regularly exclude expert witness testimony that seeks to tell the jury what it must find. “When an expert undertakes to tell the jury what result to reach, this does not *aid* the jury in making a decision, but rather attempts to substitute the expert’s judgment for the jury’s.” *United States v. Duncan*, 42 F.3d 97, 101 (2d Cir. 1994); *accord Nagle v. Gusman*, 2016 WL 541436, at \*5 (E.D. La. Feb. 11, 2016) (collecting cases).

**F. Expert Witnesses May Not Testify to Motive Or Intent.**

“Inferences about the intent or motive of parties or others lie outside the bounds of expert testimony.” *Greger v. C.R. Bard, Inc.*, 2021 WL 3855474, at \*9 (E.D. Tex. Aug. 30, 2021). As courts in the Fifth Circuit have explained, an expert is in no “better position than the jury to draw conclusions about a defendant’s state of mind.” *Sanchez v. Gomez*, 2020 WL 3316990, at \*11

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<sup>11</sup> Legal tests and requirements are not a proper subject of expert testimony. *See, e.g., United States v. El-Mezain*, 664 F.3d 467, 512 (5th Cir. 2011) (describing “test” for whether an individual may donate to an entity that Treasury has not designated as a terrorist organization); *SB IP Holdings, LLC v. Vivint, Inc.*, 2023 WL 6601415, at \*6 (E.D. Tex. Oct. 10, 2023) (legal standard for inventorship).

<sup>12</sup> *See, e.g., Askanase*, 130 F.3d at 673 (whether officers and directors breached their fiduciary duties); *Malone v. Georgia-Pac. LLC*, 2024 WL 556334, at \*5 (E.D. Tex. Jan. 10, 2024) (whether defendants were negligent, and what they should have done to comply with law); *Roe*, 2022 WL 987814, at \*3 (whether a party satisfied the applicable standard of care); *E.Z. Aces Gaming Inc. v. Penn-America Ins. Co.*, 643 F. Supp. 3d 620, 625 (W.D. La. 2022) (whether a party acted in bad faith); *Fees v. Am. Family Life Ins. Co. of Columbus*, 2021 WL 2104990, at \*6 (N.D. Okla. May 25, 2021) (whether a defendant’s conduct was “unfair”); *Whatley v. Great Lakes Ins. SE*, 2020 WL 8970502, at \*8 (E.D. Tex. Nov. 30, 2020) (whether a party acted in bad faith).

<sup>13</sup> *See, e.g., Feinberg v. Katz*, 2007 WL 4562930, at \*10 (S.D.N.Y. Dec. 21, 2007); *United States v. Demik*, 2005 WL 7394037, at \*2 (N.D. Tex. May 6, 2005).

<sup>14</sup> *See, e.g., Valencia v. Davis*, 836 F. App’x 292, 299–300 (5th Cir. 2020); *Renfro v. Parker*, 974 F.3d 594, 598 (5th Cir. 2020); *McBroom v. Payne*, 478 F. App’x 196, 200 (5th Cir. 2012); *Est. of Sowell v. United States*, 198 F.3d 169, 171 (5th Cir. 1999); *Mod. Grp., Ltd.*, 2024 WL 1290450, at \*13.

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(W.D. Tex. June 17, 2020) (quoting *Marlin v. Moody Nat'l Bank, N.A.*, 248 F. App'x 534, 541 (5th Cir. 2007)). A court should therefore exclude “expert testimony that evaluates a party’s state of mind” or “intent,” “as that evaluation is within the province of the jury.” *Fisher*, 2009 WL 5216949, at \*2.

A corporation’s “subjective intent, motives, or internal decision-making” is not an appropriate subject for expert testimony. *Greger*, 2021 WL 3855474, at \*9. This includes testimony concerning the “subjective belief or intent of a corporate entity,” for instance, whether the entity did something “actively and intentionally” or had a “good-faith belief.” *GREE, Inc. v. Supercell Oy*, 2020 WL 4059550, at \*2 (E.D. Tex. July 20, 2020). Among other issues, the “intent, motives or states of mind of corporations ... have no basis in any relevant body of knowledge or expertise,” so such testimony is “improper and unhelpful to the jury.” *Id.* (quoting *Retractable Techs. Inc. v. Abbott Lab'ys, Inc.*, 2010 WL 11531436, at \*5 (E.D. Tex. June 18, 2010)); *see also Marlin*, 248 F. App'x at 541 (“[C]onclusory assertions regarding a defendant’s state of mind are not helpful or admissible.”) (citing *Salas*, 980 F.2d at 305). The same is true as to the intent, motives, or knowledge of an individual. *Retractable Techs.*, 2010 WL 11531436, at \*5 (“[T]he question of intent is a classic jury question and not one for the experts.”).<sup>15</sup>

**G. Even As to Opinions That Are Admitted, The Court Should Be Vigilant Regarding The Permissible Scope And Candor Of Testimony Of Plaintiffs’ Experts.**

Rule 26(a)(2) imposes a fundamental obligation to provide discovery. Plaintiffs must not only ensure their expert witnesses appear for deposition, they are also obliged to ensure their

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<sup>15</sup> *See also, e.g., Atlas Glob. Techs. LLC v. TP-Link Techs. Co., LTD.*, 684 F. Supp. 3d 570, 578 (E.D. Tex. 2023) (intent or knowledge); *Ambler v. Nissen*, 2023 WL 4612016, at \*4 (W.D. Tex. July 18, 2023) (knowledge); *Huawei Techs. Co., Ltd. v. Yiren Huang*, 2019 WL 2077821, at \*4 (E.D. Tex. May 9, 2019) (state of mind and intent); *Fisher*, 2009 WL 5216949, at \*2 (mental state); *Advanced Tech. Incubator, Inc. v. Sharp Corp.*, 2009 WL 4669854, at \*5 (E.D. Tex. Sept. 15, 2009) (subjective belief).

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witnesses answer questions candidly and responsively concerning their qualifications to testify, the opinions they intend to offer, and the basis for them. “[A]n evasive or incomplete disclosure, answer, or response must be treated as a *failure* to disclose, answer, or respond.” Fed. R. Civ. P. 37(a)(4). When an expert witness exhibits “unwillingness to answer questions directly” and “retreat[s] into obfuscation,” exclusion is an appropriate remedy. *In re Trasyolol Prod. Liab. Litig.*, 709 F. Supp. 2d 1323, 1339 (S.D. Fla. 2010); *see also, e.g., Harrison v. Aztec Well Servicing Co.*, 2022 WL 125315, at \*12 (N.D. Tex. Jan. 13, 2022) (“[A]n expert who has been designated to testify on ‘damages’ may not hide behind protestations to the effect of ‘I am not a lawyer, so I don’t know what you mean by ‘damages.’”).

The behavior of several of Plaintiffs’ witnesses breached this obligation. As explained in greater detail below, many of Plaintiffs’ experts filibustered,<sup>16</sup> declined to answer questions on their qualifications,<sup>17</sup> were instructed not to answer questions that did not implicate privilege,<sup>18</sup>

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<sup>16</sup> *See, e.g.* Ex. 1 (Weinberg Depo. Tr.) 112:17-117:21 (“Q: But you have [] performed no sampling or quantitative study to show how many transactions were affected by, for example, reserve price optimization, is that true?” Rather than answer the question directly, Dr. Weinberg insisted on providing “context,” which consumed two pages of testimony, during which he pointed to *other* work he had done, only *then* conceding he had *not* used quantitative sampling to support any of his conclusions.); *see also* Ex. 8 (Andrien Depo. Tr.) 128:20-129:6 (asked “Did you look at those statutes, the states’ statutes, as it bears on the deterrent factor in their treble damage statutory penalties, yes or no?” and responding “And I’m going to give the same answer that I gave last time, and the time before that, and—and every time you ask me this question because it’s important for me, I think, under oath to give a complete answer and put it into context, so I’m going to do that every time....”). Mr. Andrien used this or similar insistence on providing “context” dozens of times in his deposition. *See also* Ex. 13 (DeRamus Depo. Tr.) 74:22-76:25 (avoiding answering “Are you offering the opinion that Google’s practices were actually deceptive?” and “Are you offering any opinions regarding what information, if any, is material to Google’s ad tech customers, namely, advertisers and publishers?”).

<sup>17</sup> *See* Section III, *infra* (Andrien); *see also* Ex. 31 (Shafiq Depo. Tr.) at 229:1-236:8; 239:14-241:20; 242:11-244:16; 244:19-245:22.

<sup>18</sup> *See* Ex. 31 (Shafiq Depo. Tr.) at 41:20-44:9 (following instruction not to answer how much the expert was compensated in other cases); *id.* at 50:17-51:4 (following instruction not to answer whether, since expert has “issued three expert reports against Big Tech since March of 2024,” the expert is “making more money testifying as an expert than ... as a professor at U.C. Davis.”).

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and obfuscated to avoid responding to basic, “yes” or “no” questions.<sup>19</sup> *See, e.g. Realtime Data, LLC v. Oracle Am., Inc.*, 2017 WL 11574028 at \*8 (E.D. Tex. Mar. 30, 2017) (“Such a tactic is prejudicial ... because it prevents a meaningful cross-examination of the basis of [the expert’s] opinions.”).

None of this meets the requirements of Rule 26. The Court should treat all of it as an effective failure to “appear” (even though the witnesses were physically present) because the argumentative and evasive nature of the witnesses’ responses reflect impermissible tactics calculated to deprive Google of a fair opportunity to obtain clear answers about the experts’ opinions and the basis for them. *See, e.g., Consumer Fin. Protection Bureau v. Brown*, 69 F.4th 1321, 1325, 1387-28 (11th Cir. 2023) (dismissing claim by CFBP as a sanction for “impermissible tactics” where Rule 30(b)(6) witness read verbatim from memory aids in “filibuster-style reading occur[ing] repeatedly” and finding that, though physically present at the deposition, the witness failed to “appear” because, among other things, he gave “extended and nonresponsive answers, ...[that] tried to game the system so that nothing was accomplished”); *Magyar v. United Fire Ins. Co.*, 811 F.2d 1330 (9th Cir. 1987) (affirming order striking testimony of witness who gave persistently non-responsive and argumentative answers); *Harrison*, 2022 WL 125315, at \*13 (excluding expert witness who “did not show his work” and refused to answer questions, such that his conclusions were “unreliable and therefore inadmissible”); *Estech Sys., Inc. v. Target Corp.*, 2021 WL 5154220 at \*7 (E.D. Tex. Jul. 21, 2021) (excluding as trial witness CEO who was

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<sup>19</sup> *See, e.g.* Ex. 1 (Weinberg Depo. Tr.) 243:8-243:20 (Q: “Can you identify any specific ad buyer who was in fact deceived...?” A: “[It was] not part of my assignment to identify specific advertisers or publishers who were deceived ....”); *see also* Ex. 31 (Shafiq Depo. Tr.) 134:5-136:9; *id.* at 253:2-255:2; Ex. 8 (Andrien Depo. Tr.) 198:1-209:16 (refusing to answer directly different ways of asking whether it is a mathematical fact that [REDACTED] is roughly [REDACTED] as much as [REDACTED], because “it’s very important to put that in context” and “it’s not appropriate to answer that question without the context. So I’m going to continue to put the context in.”).

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“exceedingly evasive during his deposition and refused to give simple answers to simple questions”).

Experts have the same obligations as lay witnesses: they must give responsive answers to direct questions. But they *are* different in another respect: the Supreme Court has emphasized that expert evidence “can be both powerful and quite misleading,” requiring the Court to exercise “more control over experts than over lay witnesses.” *Daubert*, 509 U.S. at 595. Where, as here, experts repeatedly and intentionally evade their responsibilities to provide truthful, responsive answers to direct questions, their evidence should be excluded as prejudicial.

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In sum, where an expert has stepped outside his area of expertise, fails to support the offered opinions in a manner consistent with the discipline employed, rests an opinion on an *ipse dixit*—whether his own or in the form of an argument or assumption provided by counsel—or otherwise seeks to tell the jury what they should find, the Court must exclude the testimony. And when an expert measures the wrong thing, relies on irrelevant evidence, or offers an opinion on a matter the jury must decide, or an opinion that would confuse or mislead them, the Court must also exclude the testimony.

**II. Certain Of Dr. Weinberg’s Opinions Should Be Excluded Because They Are Improper Subjects for Expert Testimony Or Suffer From A Trillions-Of-Auctions-Wide Analytical Gap.**

Plaintiffs offer auction-theorist Matthew Weinberg (who has no experience in digital advertising) in an attempt to prove “deception” without demonstrating that any ad buyer or seller was actually deceived by Google’s actions. His opinions on what counts as “deceptive” or “misleading” and what information is “material” to Google’s customers attempt to instruct the jury (inaccurately) on the law, or else do for the jury what it is quite capable of doing without any “help.” Expert witnesses can’t do that. *See* Section I(E), *supra*. Next, Dr. Weinberg seeks to opine



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on the subjective states of mind of Google and its customers. This, too, is inadmissible. *See* Section I(F), *supra*. Finally, Plaintiffs solicit from Dr. Weinberg an opinion on the scope of the alleged “deception” to support the indefensible calculations of DTPA “violations” and appropriate “penalties” offered by another of Plaintiffs’ “experts,” Mr. Andrien. Unchecked and unsupported, Dr. Weinberg would opine that “*every single auction*” on Google’s ad exchange—more than [REDACTED] [REDACTED]—was the product of deception, ignoring that he has no evidence of how many transactions the allegedly undisclosed optimizations (Reserve Price Optimization (RPO), Dynamic Revenue Sharing (DRS), and Project Bernanke) actually affected.

These sweeping, made-for-litigation opinions are unsupported by anything close to sufficient data, information, or experience. In fact, Dr. Weinberg admits he did not examine individual auction transactions to determine whether “even one” advertiser or publisher was actually deceived. Ex. 1 (Weinberg Depo. Tr.) 230:22-231:12, 241:8-19. Rather than actually quantifying, identifying, or otherwise measuring *which* of Google’s [REDACTED] ad transactions were or even could theoretically have been the result of deception, Dr. Weinberg simply *asserts* that “all” of the nearly [REDACTED] auctions occurring during a particular period were somehow “impacted” by “Google’s deceptive conduct. *Id.* at 115:7-116:4.

Dr. Weinberg has no evidence to support what amounts to pure leap of logic; namely, his claim that because *some* unquantified number of transactions used one or more of these optimizations, “Google’s deceptive conduct impacted *every* auction,” *id.* at 115:22-23, including those that did not use the optimizations at all. *Daubert* requires all of this be excluded as the “analytical gap” between the facts and Dr. Weinberg’s “every auction” opinion is far too wide, to say nothing of the irrelevance and prejudice of his unburdened-by-evidence advocacy.



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**A. Dr. Weinberg Cannot Opine That Certain Conduct Was “Deceptive” Or “Misleading.”**

At the heart of Plaintiffs’ DTPA claims is whether Google’s conduct, and more specifically the alleged nondisclosure of that conduct, was “deceptive” or “misleading.” *See, e.g.,* Tex. Bus. & Com. Code § 17.46(a). Dr. Weinberg attempts, improperly, to offer opinions that Google’s actions and disclosures were, in fact, deceptive or misleading.<sup>20</sup> This is inadmissible.

It is for the Court, not Dr. Weinberg, to instruct the jury on what the law considers “deceptive” or “misleading” within the context of each Plaintiff State’s DTPA. An expert witness cannot offer “conclusions of law.” *C.P. Interests*, 238 F.3d at 697. Courts regularly prohibit experts from offering backdoor legal conclusions, as Dr. Weinberg seeks to do here by opining that conduct in *his* mind falls short of a given legal standard and substituting that for the *actual* legal standard. *See, e.g., Willis v. Colgate Palmolive Co.*, 2023 WL 11915708, at \*10 (C.D. Cal. Jan. 5, 2023) (expert’s “descriptions of Colgate’s statements as ‘false’ or ‘misleading’ [] constitute improper legal opinion that must be excluded.”); *In re ConAgra Foods, Inc.*, 302 F.R.D. 537, 558 (C.D. Cal. 2014) (“‘False’ and ‘deceptive’ are judicially defined terms. Accordingly, [expert’s] use of these terms constitutes the offering of an improper legal opinion that usurps the role of the court.”); *In re Suboxone Antitrust Litig.*, 2020 WL 6887885, at \*47 (E.D. Pa. Nov. 24, 2020) (excluding “inadmissible legal opinion” that statements “were false or misleading”). As this Court explained in prohibiting expert testimony on whether a given product was “defective,” an expert

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<sup>20</sup> *See* Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 122 (“Google’s conduct with respect to RPO is deceptive....”); *id.* ¶ 127 (“Google’s purported ‘disclosure’ of RPO was insufficient.”); Ex. 2 (Weinberg Rpt.) ¶ 227 (“Google misled advertisers by not revealing DRSv1 ....”); *id.* Section VII.G (“Some aspects of DRS are exceptionally misleading.”); Ex. 3 (Weinberg Rebuttal Rpt.) Section IV.C (“Google’s Conduct with Respect to Project Bernanke is Deceptive.”).

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opinion is “an impermissible legal conclusion” if the “language has a distinct legal meaning and is a legal term of art.” *Greger*, 2021 WL 3855474, at \*10.

Here, the impropriety—and the risk of confusing the issues in violation of Rule 403—is even more dangerous. Not only are “deceptive” and “misleading” legal terms of art, but their legal meaning varies from State to State in material respects. Compare, e.g., *Doe v. Boys Clubs of Greater Dallas, Inc.*, 907 S.W.2d 472, 479-80 (Tex. 1995) (“Generally, an act is false, misleading, or deceptive if it has the *capacity to deceive an ‘ignorant, unthinking, or credulous person.’*”), with *State v. Wyndham Int’l, Inc.*, 869 So. 2d 592, 598 (Fla. Ct. App. 2004) (“When addressing a deceptive or unfair trade practice claim, the issue is ... whether the practice was *likely to deceive a consumer acting reasonably in the same circumstances.*”), and *Turner v. Purina Mills, Inc.*, 989 F.2d 1419, 1422 (5th Cir. 1993) (under Louisiana DTPA, an “‘unfair trade practice’ is ‘a practice that is *unethical, oppressive, unscrupulous, or substantially injurious*’”). Even if Dr. Weinberg’s idiosyncratic definition of “deceptive” happened to have accurately applied *one* Plaintiff State’s definition of “deceptive,” he would necessarily be applying an incorrect standard for another. This too prohibits him from venturing into what is “deceptive” or “misleading.” See *YETI Coolers*, 2017 WL 429210, at \*2 (“Courts will exclude expert testimony when it relies on an incorrect legal standard.”); *KB Home*, 2007 WL 1893370, at \*10 (“[A]n expert witness must use a correct legal standard” because “testimony that relies on an incorrect legal standard would confuse and mislead the jury.”).

Further, Dr. Weinberg’s “deception” opinions are inadmissible because they would not “help” the jury. See Fed. R. Evid. 702. Whether Google “committed fraud or engaged in deceptive practices is something the jury can readily evaluate on their own after hearing the evidence—there is no need for expert testimony on this point.” *Joseph v. Signal Int’l LLC*, 2015 WL 12766134, at

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\*14 (E.D. Tex. Feb. 12, 2015). This is especially true as to Dr. Weinberg’s opinions interpreting and critiquing Google’s disclosures regarding RPO and DRS. Dr. Weinberg tries to quibble with the language. He claims, for instance, that the May 2016 blog post about RPO distracted readers with its emphasis on “increas[ing] publishers’ revenue,” Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 127, and that a DRS-related disclosure was overly generous in describing DRS as “auction optimizations,” *id.* ¶ 113(vi). Dr. Weinberg’s personal interpretation of disclosure documents is not the work of an expert at all. Jurors can read and interpret documents without Dr. Weinberg’s purported assistance. *See, e.g., Blythe*, 2013 WL 6190284, at \*4 (“[T]he adequacy of warnings—whether they give reasonable notice of dangers to consumers” is “not an issue for which ... ‘specialized knowledge’ is needed.”); *Tisdale*, 2024 WL 2033933, at \*5 (rejecting expert’s testimony that “offer[ed] the jury his interpretation of a document”).

**B. Dr. Weinberg Cannot Opine on What Information Was “Material” To Digital Advertisers And Publishers.**

The same principles bar Dr. Weinberg’s attempt to testify to whether allegedly undisclosed information was “material” to Google customers. He intends to offer “materiality” opinions as to each of (i) RPO, *see* Ex. 2 (Weinberg Rpt.) ¶ 273 (“[I]t is my opinion that Google concealed information that is material to both publishers and advertisers during the period RPO was concealed.”); (ii) DRS, *see id.* ¶ 219 (“Google concealed material information from publishers by not disclosing the implementation of DRSpv1.”); and (iii) Bernanke, *see id.* ¶ 258 (“Google concealed vital information from advertisers by concealing Project[] Bernanke ....”).

Materiality is a legal term of art in a DTPA case. *See, e.g., FTC v. Neora LLC*, 2023 WL 8446166, at \*27 (N.D. Tex. Sept. 28, 2023) (“A representation, omission or practice is material if it involves information that is important to consumers and, hence, likely to affect their choice of, or conduct regarding, a product.”). Dr. Weinberg’s opinions on what was “material” are thus

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inadmissible legal conclusions. *See, e.g., Demik*, 2005 WL 7394037, at \*2 (“opinion as to the materiality of the fraudulent statements” was “related to a legal conclusion and therefore [] inadmissible”); *Feinberg*, 2007 WL 4562930, at \*10 (expert “opine[d] impermissibly that the omitted information was material” because “these issues are for the jury”).

Dr. Weinberg’s “materiality” opinions are all-the-more inadmissible because he is not qualified to offer them. Materiality is determined “from the perspective of the ‘reasonable consumer,’” *Pratt v. I.C. Sys., Inc.*, 2006 WL 8432175, at \*3 (S.D. Fla. May 10, 2006) (collecting cases), in the context of “the transaction in question,” *Jones v. Zearfoss*, 456 S.W.3d 618, 623 (Tex. App.—San Antonio 2015, no pet.); *see also In re Cliffdale Assocs., Inc.*, 103 F.T.C. 110, 1984 WL 565319, at \*46 (Mar. 23, 1984) (“The act or practice must be considered from the perspective of the reasonable consumer ... under the circumstances.”). But while the deception inquiry must “start[] with the background knowledge of the reasonable consumer,” *Dinan v. Sandisk LLC*, 2019 WL 2327923, at \*6 (N.D. Cal. May 31, 2019), Dr. Weinberg knows nothing about the relevant consumers. He is an auction *theorist*—an academic who has “definitely not worked in ad publishing” and has “never worked on ad buying.” *See* Ex. 1 (Weinberg Depo. Tr.) 44:2-3, 44:24-25. Neither has he interviewed a single digital advertiser or publisher. *Id.* at 87:25-88:8. He thus has no relevant expertise or experience that would support a reliable opinion regarding what digital publishers and advertisers would deem important in making transactional decisions. Similarly, in a case about the alleged impact of false advertising on buyers in the conduit industry, this Court excluded an expert’s testimony regarding “considerations influencing the purchasing decision” because her “field of [] expertise—economics—puts her in no better position to testify” on that subject than anyone else. *Robroy Indus.*, 2017 WL 1319553, at \*10. An academic like Dr. Weinberg, who lacks any “pertinent experience in a particular industry,” “cannot qualify

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as an expert on what causes customers in that industry to make purchasing decisions.” *Id.* at \*9; *see also Realtime Data*, 2009 WL 4545087, at \*1-2 (expert was unqualified to opine whether undisclosed reference in patent application was “material” because he was not an expert in the relevant “technical field”).

**C. Dr. Weinberg Cannot Opine Regarding Google’s or Third Parties’ States Of Mind, Including Their Expectations, Beliefs, Or Intent.**

Dr. Weinberg is “not a mind-reader” and has no expertise in psychology beyond “one course in undergrad.” Ex. 1 (Weinberg Depo. Tr.) 26:16-19, 226:6-8. Nevertheless, he seeks to offer a litany of opinions about subjective states of mind, including speculation about (i) Google’s “intent” and “beliefs” behind the implementation of various optimizations or the details of how various programs worked, *see, e.g.*, Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 72 (“In many cases, it is my opinion that Google took these actions with *intent* to deceive.”); *id.* ¶ 176 (“Google *does not believe* publishers are Sophisticated and Fully Informed ....”); *id.* ¶ 451 (“[T]his [exemption] policy *was created, at least in large part, to provide* preferential treatment towards [Google Ads].”); and (ii) what digital publishers and advertisers “believed,” “understood,” or “expected” with respect to Google’s platforms and programs, *see, e.g.*, Ex. 2 (Weinberg Rpt.) ¶ 219 (“[P]ublishers *believed* that AdX runs a regular second-price [auction] with their given reserve price and a static take rate of 20% ....”); Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 93 (“Advertisers ... *expected* [Google Ads] to optimize bids on their behalf.”); *id.* ¶ 110 (“At minimum, advertisers *would believe* AdX to be running a truthful auction ....”). Dr. Weinberg also opines that three of Google’s ad-tech programs—RPO, DRS, and Bernanke—involved deception, in each case because they were (according to Dr. Weinberg) undisclosed or insufficiently disclosed. Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 24 (“[A]dvertisers *would have changed their bids if they knew* the true mechanics

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underlying DRSv1 and DRSv2.”); *id.* ¶ 19 (“[Google Ads] advertisers *would have ‘shaded their bids’ if they knew* about Project Bernanke.”).

Expert opinions that “relate to Defendants’ state of mind or intent are undoubtedly inadmissible.” *Huawei Techs.*, 2019 WL 2077821, at \*4. The rule applies not just to expert testimony regarding the defendant’s state of mind, but expert testimony regarding *any* person or entity’s state of mind: “it is improper for an expert to opine as to the subjective belief or intent of a corporate entity.” *GREE*, 2020 WL 4288350, at \*2; *see also* Section I(F), *supra*. Thus, Dr. Weinberg’s speculation on what ad buyers and sellers “believed” or how they “would have” responded is not admissible for any purpose. The reason is simple: testimony that “evaluates a party’s state of mind ... is within the province of the jury,” *Fisher*, 2009 WL 5216949, at \*2, and whatever “an expert’s credentials,” they “do not place him in a better position than the jury to draw conclusions about a defendant’s state of mind,” *Marlin*, 248 F. App’x at 541; *see also Advanced Tech. Incubator*, 2009 WL 4669854, at \*5 (ruling “expert opinions on issues of subjective belief” inadmissible because they “will not ‘assist the trier of fact’”).

Dr. Weinberg’s “intent” and “belief” opinions, whether about Google’s state of mind or that of unnamed (and unknown) ad buyers and ad sellers should be excluded for these reasons.

**D. Dr. Weinberg’s Opinion That “All Auctions” Were Affected by The Alleged Deceptive Conduct Is Unreliable *Ipse Dixit* And Is Unduly Prejudicial.**

The Court should also exclude Dr. Weinberg’s sweeping opinion that *all auctions* were affected by these algorithms. Dr. Weinberg has no evidence or analysis supporting this gross overstatement. He admits that he does not know—and made no quantitative study to determine—how many transactions were *actually* affected by RPO, DRS, or Bernanke. Ex. 1 (Weinberg Depo.

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Tr.) 116:22-118:18.<sup>21</sup> In fact, he acknowledges that only a fraction of AdX auctions involved RPO, DRS, or Bernanke. *See* Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 63(iii) (describing auctions “not connected to the Deceptive Conducts,” *i.e.*, RPO, DRS, and Bernanke). That these programs did not influence *all* AdX auctions is beyond dispute. *See, e.g.*, Ex. 4 (GOOG-DOJ-15195905) at -911 (DRS [REDACTED]); Ex. 5 (GOOG-AT-MDL-007375273) (RPO [REDACTED]); Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 89 n.83 (“Project Bernanke only applied to [Google Ads],” not any other buying tool bidding into AdX). This is, moreover, to say nothing about the gulf between auctions affected by the *programs* (RPO, DRS, and Bernanke) and auctions affected by the *alleged deception* (the purportedly insufficient disclosure of RPO, DRS, and Bernanke). *See* Section IV(B)(1), *infra* (DeRamus).

Ignoring the data and logic to the contrary, and having conducted no supporting analysis, Dr. Weinberg nevertheless asserts that “*every single auction*” run on Google’s AdX ad exchange was impacted by the alleged deception, simply because he says so. Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 66. The lack of support for this opinion makes it inadmissible under Rule 702.

Dr. Weinberg claims there are “two manners” by which Google’s alleged deception in connection with RPO, DRS, and Bernanke “could influence any auction.” Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 138; *see also* Ex. 1 (Weinberg Depo. Tr.) 116:5-21. Neither survives even a cursory examination of the analytical gap between those bases and the ultimate “every single auction” conclusion. *See* Section I(D), *supra*.

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<sup>21</sup> *See also id.* at 115:7-115:4 (no quantitative study of RPO); *id.* at 116:22-117:3 (same as to DRS); *id.* at 117:4-9 (same as to Bernanke); *id.* at 117:22-118:8 (no study to quantify how many transactions used RPO); *id.* at 117:10-21 (same as to DRS); *id.* at 118:15-18 (“I did not do quantitative analysis to confirm that or count the number of transactions that occurred since Bernanke was developed.”).

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**1. Premise One: The Alleged Deception Caused Some Unidentified Participants to Use Google’s Ad Tech Platforms “In The First Place.”**

The “first” purported basis for Dr. Weinberg’s all-auctions opinion is that “some participants” “would not even be in Google’s Display Advertising RTB Ecosystem” if Google had accurately disclosed RPO, DRS, and Bernanke. Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 139.

Dr. Weinberg has no facts to support this premise. He provides nothing more than a hypothesis. Specifically, he claims that “participants join” Google’s display ad ecosystem due to “the allure of simplicity,” and thus that Google “deceived participants to join” its platform “in the first place” because one or more of RPO, DRS, or Bernanke made the platform “anything but [simple].” Ex. 3 (Weinberg Rebuttal Rpt.) ¶¶ 63(i), 63(ii), 78, 80.

There is, however, *no* evidence supporting this hypothesis. Dr. Weinberg cites no examples—because there are none—of advertisers or publishers that joined Google’s platforms because of the allure of simplicity, but that (i) would not have deemed the platform “simple” had one or more of RPO, DRS, or Bernanke been disclosed differently, and (ii) as a result would have either left or not joined Google’s “ecosystem.” *See* Ex. 1 (Weinberg Depo. Tr.) 119:19-23 (“I have not identified a particular advertiser that I know would not have joined Google’s ecosystem if RPO had been fully and accurately disclosed.”); *id.* at 121:2-5 (“I do not know of a particular advertiser that I am confident only joined Google’s ecosystem because they believed it to be bidder truthful.”); *id.* at 122:3-6 (“I do not know a particular advertiser that I know for certain only joined – only used [Google Ads] because of Google’s deception.”). This is no surprise, given that Dr. Weinberg did not interview a single ad buyer or seller, *see id.* at 87:25-88:8, before speculating that some unidentified (but significant) number of them would not have used Google’s ad tech platforms “in the first place” under particular but-for conditions.



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Nor did Dr. Weinberg perform any study on participants' entries to or exits from Google's so-called "ecosystem." As a purported expert, Dr. Weinberg could have developed a model, for instance comparing the entry-rate of new participants surrounding marketing communications touting "simplicity" to the exit-rate of current participants following announcement of a less-simple first-price auction in 2019. But he "did none of these things," instead merely "examin[ing] materials produced in discovery" and drawing inferences from them that "appear fantastic." *See Mid-State Fertilizer Co. v. Exch. Nat'l Bank of Chi.*, 877 F.2d 1333, 1340 (7th Cir. 1989) (Easterbrook, J.). By Dr. Weinberg's admission, he "give[s] *arguments* for why Google's deceptive conduct impacted every auction," Ex. 1 (Weinberg Depo. Tr.) 115:22-23, thereby "speaking in legal rather than economic terms," *Mid-State*, 877 F.2d at 1340.

The analytical gap—between the notion that some undetermined number of Google customers value simplicity and the opinion that a material number of customers would not have used Google's platform had RPO, DRS, and Bernanke been "adequately" disclosed—is vast. Such analytical gaps permit the speculative, litigation-driven conclusions Rule 702 forbids. Indeed, Dr. Weinberg's conclusion is contradicted by precisely opposite conclusions reached by Plaintiffs' experts, *including Dr. Weinberg*, who contend that disclosure would *not* have caused customers to leave, and that nondisclosure did *not* cause customers to join in the first place. *See* Ex. 2 (Weinberg Rpt.) ¶ 260 (speculating that "had they known about the conducts, an advertiser might prefer [Google Ads] to non-[Google Ads] simply to avoid the negative impacts caused to non-[Google Ads] advertisers by Projects Bernanke and Global Bernanke"); Ex. 52 (Gans Rpt.) ¶ 416(b) ("[P]ublishers [] consider AdX a 'must-have' exchange."); *id.* ¶ 421 ("Google's large pool of advertisers willing to purchase display ads via [Google Ads] originated from Google's dominant position in search advertising," not any expectations of simplicity). The Fifth Circuit and courts

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within it regularly exclude such unsupported opinions of what parties “would have” done “but for” the alleged wrongful conduct.<sup>22</sup> The Court should do so here.

**2. Premise Two: Participants Would Have Changed Their Behavior in All Auctions Had They Known That Google’s Optimizations Affected Some (Not All) Auctions.**

The second theory underlying Dr. Weinberg’s all-auctions opinion is that “participants generally change their behavior in a deceptive Display Advertising RTB Ecosystem, and these changes cannot always be tracked to a particular deceptive act.” Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 141. He concludes that purportedly deceptive conduct in an unidentified subset of auctions “may” cause participants to change their behavior in *all* auctions, “resulting in suboptimal behavior” across the board. *Id.* This premise fares no better than the first because the anecdotal evidence underlying it cannot hope to support an opinion encompassing 29 trillion auctions.

Dr. Weinberg supplies just two anecdotes. The first is a report that “[REDACTED],” which is theoretically not an “optimal” strategy. *Id.* ¶ 142. But that report also indicates that, while [REDACTED] [REDACTED]” Ex. 6 (GOOG-TEX-00831373) at -378. It is not clear how Dr. Weinberg draws any inference applicable to all auctions from a report that some bidders may have acted suboptimally, while others did not. A meeting note discussing divergent behavior within a sliver of auction traffic is nothing like the foundation necessary to reliably speak to the behavior of 100%

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<sup>22</sup> See, e.g., *Stelluti Kerr, L.L.C. v. Mapei Corp.*, 703 F. App’x 214, 230-31 (5th Cir. 2017) (expert’s opinion was unreliable because “estimate[] that [plaintiff] would sell seven machines per year” was “not supported by any empirical analysis or any evidence”); *El Aguila Food Prods., Inc. v. Gruma Corp.*, 131 F. App’x 450, 453 (5th Cir. 2005) (affirming rejection of expert’s but-for world assuming how business “would have performed” without any “effort to demonstrate the reasonable similarity” of the business to the proxies employed); *Lea v. Wyeth LLC*, 2011 WL 13143427, at \*5 (E.D. Tex. Oct. 6, 2011) (holding “experts’ opinions on what a reasonable pharmaceutical company would have done” were “unsupported by sufficient analysis to be admissible” because experts failed so much as to “discuss any grounds” supporting their presumed but-for behaviors).

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of auction participants. The second anecdote is even further afield. Dr. Weinberg cites a single instance in which an advertiser [REDACTED]

[REDACTED]. Ex. 3 (Weinberg Rebuttal Rpt.) ¶ 143. Ad impressions generally cost pennies or less— [REDACTED]

[REDACTED].<sup>23</sup> The very document Dr. Weinberg cites shows [REDACTED]

[REDACTED] had nothing to do with RPO, DRS, or Bernanke. Ex. 7 (GOOG-AT-MDL-B-003716246) at -252. This anecdote about a bidder's mistake has no relevance to a conclusion about "every single auction."

**3. These Premises Are Insufficient: One Plus One Does Not Equal [REDACTED].**

Any asserted relevance of Dr. Weinberg's unsupported all-auctions opinion is "substantially outweighed by a danger of ... unfair prejudice." Fed. R. Evid. 403. Those premises, if true, might support an opinion that *some non-zero number* of auctions were affected by the alleged deception. But there is an insurmountable gap between that speculation and the unqualified assertion that *all* [REDACTED] auctions were affected.

Dr. Weinberg offers nothing to bridge this analytical gap. Anecdotal evidence cannot reliably support expert testimony "extrapolat[ing]" to "general trends or rates of adverse events." *Conn v. C.R. Bard, Inc.*, 2021 WL 2346053, at \*3-4 (S.D. Tex. June 8, 2021). Even if the Court strained to credit Dr. Weinberg's speculation as evidence of some "indirect effects," his anecdotes are equally consistent with an exponentially less sweeping (and far more plausible) conclusion that some, not all, auctions were affected. Reliance on observations "at best equally consistent" with a less sweeping conclusion leaves an analytical gap that warrants excluding the opinion entirely. *Atl.*

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<sup>23</sup> Perhaps tellingly, while Dr. Weinberg is aware that ad impressions are sold on AdX in increments of "cost per mile," Weinberg Depo. Tr. at 159:11-15, he did not know "what units are represented by that measurement," *id.* at 160:4-7.

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*Specialty Ins. Co. v. Porter, Inc.*, 742 F. App'x 850, 855 (5th Cir. 2018); *see also, e.g., Viterbo*, 826 F.2d at 423-24 (evidence that plaintiff had “some sort of toxic reaction” and study showing that specific toxin caused “some unidentified effect on humans” could not support opinion that specific toxin caused the reaction). Thus, courts reject the notion that evidence of “some” supports a conclusion of “all.” *See, e.g., Donnelly v. Ford Motor Co.*, 80 F. Supp. 2d 45, 49 (E.D.N.Y. 1999) (excluding expert opinion that “all accidental fires originating on the driver’s side of Ford vehicles are the result of ignition switch failures” offered without “some sort of statistical data and analysis, or comparison studies of ignition switch fires with fires of other origin”); *Puente v. City of Phoenix*, 2021 WL 1186611, at \*3 (D. Ariz. Mar. 30, 2021) (evidence from “sixty-five declarations or depositions” was “not a reliable [method] in forming the opinion that every” member of a class comprised of “thousands” had the same symptoms); *Doe v. Colgate Univ.*, 2017 WL 4990629, at \*8 (N.D.N.Y. Oct. 31, 2017) (excluding expert opinion that “all, or even many, administrators share” a given belief based on data “show[ing] only that *some* administrators” have the belief). Dr. Weinberg’s opinion, which rests on similarly inconclusive evidence and unwarranted extrapolation, should likewise be excluded.

**4. The Risk of Unfair Prejudice Substantially Outweighs Any Claimed Relevance Of The All Auctions Opinions.**

There is no mystery as to why Plaintiffs proffer such an unsupported “all auctions” opinion. The answer is the same now as it was at the motion to dismiss stage. Plaintiffs cannot prove which transactions, if any, were affected by the alleged nondisclosures at issue, so they argue vociferously that they should not *have* to provide such proof. *See* 4/18/2024 Hrg. Tr. at 80-81. Consistent with this lawless strategy, Dr. Weinberg seeks to relieve Plaintiffs of their burden to prove actual deception to obtain DTPA penalties. This does not prove any “fact of consequence,” under Rule 402; to the contrary, it substitutes a harm- and-injury free standard to support the imposition of

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penalties, confusing the issues and presenting profound danger that the jury will be misled. Under Rule 403, the Court should exclude it.

Plaintiffs admit, as they must, there “[a]bsolutely ... has to be injury in fact” for Article III standing. *Id.* at 45. And DTPA penalties may be assessed only upon proof of individualized injury. *See, e.g., In re Zyprexa Prods. Liab. Litig.*, 671 F. Supp. 2d 397, 459 (E.D.N.Y. 2009). Individualized injury is the “fact [] of consequence,” Fed. R. Evid. 401, to the States’ penalty demands. *See* DTPA MSJ at Section V(B). Yet Dr. Weinberg admits he has *no such proof*. *See* Ex. 1 (Weinberg Tr.) 114:19-118:18 (no evidence of a single ad buyer or ad seller who was deceived); *id.* at 118:19-122:6. The Court cannot permit Plaintiffs to use Dr. Weinberg’s unsupported *ipse dixit* to substitute for actual proof that specific buyers or sellers were deceived.

The danger of confusing the issues and misleading a jury is profound. Dr. Weinberg suggests a false certainty about deceptions in “all auctions” without any quantitative or other study to support his “claim.” And Dr. Weinberg’s assertion, despite being pure rhetoric and patently wrong, stands as the only justification for the opinion of Plaintiffs’ “penalties” expert, Jeffrey Andrien, that each of the [REDACTED] AdX auctions occurring during the relevant period constituted a “violation” of each State’s DTPA, *see* Ex. 10 (Andrien Rebuttal Rpt.) ¶7(e)(i) (stating that “[a]ll auctions” were “tainted by Google’s alleged misconduct”),<sup>24</sup> an opinion even Dr. Weinberg himself does not support, *see* Ex. 1 (Weinberg Depo. Tr.) 90:24-91:4 (“So just to be clear, none of

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<sup>24</sup> Mr. Andrien is not shy about his exclusive reliance on Dr. Weinberg’s all-auctions opinion to posit that “each auction was affected,” and was thus a DTPA violation, based on why he “understand[s]” from “Dr. Weinberg.” Ex. 10 (Andrien Rebuttal Rpt.) ¶ 92; *see also id.* ¶ 92-103 nn. 196-228 (citing “Interview with Dr. Matthew Weinberg, September 8, 2024” 33 straight times). Dr. Weinberg spoke with Mr. Andrien only once, and for only five minutes, on September 8—the day before Dr. Weinberg and Mr. Andrien submitted their rebuttal reports espousing an “all auctions” theory—and did not provide Mr. Andrien a preview copy of his report. *See* Ex. 1 (Weinberg Depo. Tr.) at 104:4-105:13, 157:5-17. The paper-thin basis for Plaintiffs’ “every auction violated the DTPA” theory is readily apparent and should be excluded.

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my opinions are alleging a violation of any statute. It is my understanding that other experts may be using *claims* in my report as the basis to *allege* violations.”). The prejudice inherent in allowing Dr. Weinberg’s injury and harm-free opinion to stand as the *sole* support for the billions in penalties Mr. Andrien asserts the Court should award against Google overwhelms any other purpose for which the evidence is offered. *See* Fed. R. Evid. 403.

**III. Mr. Andrien’s Opinions Are Irrelevant, Unreliable, And/Or Impermissible and Must Be Stricken In Their Entirety.**

Jeffrey Andrien is a business and litigation consultant. His opinions not only exceed his qualifications; they eclipse the role any expert witness can lawfully play. Through Mr. Andrien’s opinions, the States attempt to shortcut a proof quandary they created—how to analyze civil penalties under 17 different consumer protection statutes, with different standards, in the same case. Mr. Andrien’s analysis makes the problem worse. His opinion replaces the 17 *applicable* standards with a single, three-factor test that appears in *none* of the state statutes. Because he usurps the Court’s role and purports to direct the jury to apply the *wrong* legal standards, his opinions do not address any fact of consequence, confuse the issues, would mislead the jury, and are therefore inadmissible. *See* Fed. R. Evid. 401, 402, 403, 702.

To make matters worse, the States heaped a mountain of assumptions on Mr. Andrien, leaving him little *expert* work to perform. He assumed: (1) liability; (2) the relevant time period; (3) that all auctions in the relevant time period were affected by Google’s alleged misconduct; and (4) that each auction assumed to be affected by Google’s alleged conduct (i.e., all of them) amounted to a violation of every State’s DTPA. What was left to Mr. Andrien’s judgment was, primarily, how to assess a penalty on Google that would not be, in his opinion, “too big.”

Mr. Andrien’s opinions are not admissible. The simplest reason is that, as explained in connection with Plaintiffs’ backup civil penalties expert, Dr. DeRamus, experts cannot testify to

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their preferred measure of monetary sanctions, because penalty awards are a judgment call reserved exclusively to the finder of fact—nor can they offer opinions on civil penalties untethered to a measure of harm. *See* Section IV(A), *infra*; Ex. 8 (Andrien Depo. Tr.) at 136:20-25. Even if experts could opine on civil penalties, they cannot offer irrelevant, prejudicial, and unsupported analysis, as Mr. Andrien does here. His opinions would not help determine what penalties should be imposed on Google for its deceptive acts or practices, assuming, for the sake of argument, that the States can establish liability.

Mr. Andrien’s analysis of the quantum of civil penalties is also inadmissible because it measures the wrong thing. Rather than determining an appropriate penalty based on its economic effect on *Google*, as the Constitution and applicable law require, Mr. Andrien purports to perform that analysis for Google’s parent company, *Alphabet*—a non-party. No part of that analysis is relevant. All of it is wildly prejudicial to Google, which cannot be subject to a sanction based on the wealth of its much larger parent company.

Additionally, Mr. Andrien’s opinions should be excluded because he offered evasive, non-responsive, and argumentative answers throughout his deposition, depriving Google of discovery on matters Plaintiffs (and he) were required to disclose under Rules 26 and 702. While Mr. Andrien appeared physically for his deposition, he did not respond to relevant questions, so his opinions on topics he refused to address should be excluded as undisclosed. If not excluded entirely, Mr. Andrien should be called before the Court to answer basic questions he evaded in his deposition. At a live *Daubert* hearing, the Court can obtain any further evidence it needs to assess whether Mr. Andrien’s opinions are qualified, relevant, admissible, and not prejudicial.

**A. Mr. Andrien’s Analysis of The DTPA Statutes Applies The Wrong Standard.**

Mr. Andrien’s opinions rest on the wrong legal standards. He recognizes he is serving as an expert for 17 States and admits each State has its own DTPA statute. Ex. 9 (Andrien Rpt.) ¶¶

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55-76 (purporting to summarize all 17 statutes). He is also aware that the States apply *different* factors that must be considered in deciding a civil penalty. *Id.* (setting out factors for the various States). He acknowledges that Texas, for example, requires consideration of six factors, whereas Utah requires consideration of seven, and South Dakota none. *Id.* ¶¶ 71-74.

Evaluating the factors for each State is a heavy lift, but it is necessary to ensure Mr. Andrien’s opinion “fits” with the facts of consequence to the state-specific standards Plaintiffs must prove to obtain penalties. Skirting Plaintiffs’ burden to demonstrate that penalties are warranted under each individual statute, he substitutes a three-factor analysis that does not track the law of any State—much less all of them. That test addresses *only* “[1] the amount necessary to deter future misconduct, [2] the history of past violations, and [3] the ability of the offending party to pay a penalty” *Id.* ¶ 7. Mr. Andrien said it was his “assignment” to consider *only* those three factors, and he followed it. Ex. 8 (Andrien Depo. Tr.) at 42:25-44:3, 45:19-46:1. When he was asked who gave him that assignment, the States’ counsel invoked the stipulation on expert communications, leaving Mr. Andrien to respond that he could not answer. *Id.* at 44:4-45:12.<sup>25</sup>

Those three factors are not universally applicable; to the contrary, only a handful of States list deterrence, the main factor Mr. Andrien analyzes, as a factor. These factors also omit *any* consideration of additional state-specific factors the States’ counsel and Mr. Andrien chose to ignore, *e.g., id.* (Andrien Depo. Tr.) at 136:12-25 (admitting that of the six Texas DTPA factors, Mr. Andrien analyzed only factors two, three, and four), including crucial ones like the amount of harm and injury that was caused, *see In re Zyprexa*, 671 F.Supp.2d at 459; *see also* DTPA MSJ at V(B), all of which might otherwise lead to an award of nominal penalties, even if liability were

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<sup>25</sup> The Court should require Mr. Andrien to provide this information as it is the basis and reason for his opinion. *See* Fed. R. Civ. P. 26(B)(1).



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established. Because Mr. Andrien’s framework applies the wrong legal standard, it should be excluded under Federal Rules of Evidence 402 and 702. *See, e.g., YETI Coolers LLC*, 2017 WL 429210, at \*2 (courts “exclude expert testimony when it relies on an incorrect legal standard”); *Douglas*, 431 F. Supp. 3d at 836 (excluding expert testimony as “misleading and unreliable” because it “cites to a hodgepodge of standards,” but the expert “does not demonstrate why they apply”).

This incorrect standard problem is compounded because Mr. Andrien offers his penalty recommendations “jointly and independently,” meaning he largely intends to offer the same aggregate penalty figure to “punish” Google for alleged misconduct independently of the number of proven violations, theories of deceptive conduct, or even which parties prevailed. Ex. 8 (Andrien Depo. Tr.) at 15:17-23; *see also, e.g., id.* at 17:4-14 (same penalties if some challenged auction mechanics are not found to be deceptive), 92:7-13 (same penalties if the number of violations found is anywhere between [REDACTED]), 233:1-14 (same penalties whether liability is found under the laws of “one state, two states, 13, 17, any permutation combination”). But penalties turn on proof of *violations* under *every statute* at issue. It is flatly wrong for Mr. Andrien to assert that it *does not matter* to his multi-billion-dollar penalty calculation whether the States prove all, some, or none of their claims.

Mr. Andrien attempts to cover his use of incorrect legal standards with his supposed economic reasoning. He claims to have interpreted State statutes from an economic perspective to decide what they consider important. *E.g.*, Ex. 8 (Andrien Depo. Tr.) at 46:11-15.<sup>26</sup> This is a thinly-

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<sup>26</sup> *See also* Ex. 9 (Andrien Rpt.) ¶ 64 n.180 (asserting that a court of appeals in Missouri viewed deterrence as an appropriate factor to consider under the Missouri DTPA, even though deterrence is not listed in the Missouri DTPA); Ex. 10 (Andrien Rebuttal Rpt.) ¶ 11 (claiming that through advice of counsel and awareness of generally accepted economic principles, “even when the text

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disguised effort to redefine what the law actually requires the States to prove, providing yet another reason to strike his opinions. Statutes do not require economic analysis; they require *legal analysis*. *See, e.g., Kemp v. G.D. Searle & Co.*, 103 F.3d 405, 407 (5th Cir. 1997) (“Questions of statutory interpretation are questions of law[.]”). The Court, not Mr. Andrien, will determine what is “important” about the law. And no amount of economic judgment or lay research can do the work of statutory interpretation. *See Deep Ellum Brewing Co., LLC v. Tex. Alcoholic Beverage Comm’n*, 2016 WL 6747293, at \*3 (W.D. Tex. Nov. 14, 2016). This backdoor legal opinion, disguised as economic analysis, should be excluded.

**B. Mr. Andrien’s Opinion That Google Committed [REDACTED] DTPA Violations Is An Impermissible Legal Opinion.**

Relying on Dr. Weinberg’s opinion that “all auctions” were somehow “impacted” by Google’s alleged deception, *see* Section II(D), *supra*, and other assumptions of liability, Mr. Andrien concludes that each AdX auction in a defined period (2013-2023) was “affected by” misconduct and therefore a violation of each State’s DTPA statute. *See, e.g., Ex. 9* (Andrien Rpt.) ¶¶ 11(d)-(f), 98 & n.267.<sup>27</sup> In opining that Google violated DTPA statutes [REDACTED], Mr. Andrien again dons the hat of a legal expert—opining that because Dr. Weinberg says “all” auctions were *affected*, all auctions constituted DTPA violations. *See, e.g., id.* ¶ 11(d). Mr. Andrien

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of a particular Plaintiff State statute does not expressly list factors, it is my opinion that these three factors are still appropriate to consider.”).

<sup>27</sup> Mr. Andrien’s only source for his claims that auctions were “affected by” misconduct, leading to his opinion that they were DTPA violations, is his wholesale reliance on another expert, Dr. Weinberg. *Ex. 9* (Andrien Rpt.) ¶ 98 & n.267. If the Court grants Google’s motion to exclude the opinion of Dr. Weinberg, then Mr. Andrien’s opinion must be excluded as well. *See, e.g., Sims v. Kia Motors of Am., Inc.*, 839 F.3d 393, 404-06 (5th Cir. 2016) (excluding engineer’s theory about fuel tank straps that relied on another expert’s inadmissible theory); *see also In re Cathode Ray Tube (CRT) Antitrust Litig.*, 2017 WL 10434367, at \*2 (N.D. Cal. 2017) (“Where an expert bases her opinion on—or simply repeats—the unreliable opinion of another expert, a district court may properly exclude the first expert’s testimony.”).

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also purports to opine that each individual auction “counts” as a DTPA violation—as opposed to some other unit of conduct, such as each ad buyer or ad seller who was deceived, each contract entered, each program, or the auction “ecosystem” itself. *Id.* (claiming, without explanation, that “[t]he relevant metric to count violations is all AdX Open Auctions during the time that the relevant misconduct occurred”).

These opinions on questions of law must be excluded. “Each courtroom comes equipped with a legal expert ... called a judge.” *Deep Ellum*, 2016 WL 6747293, at \*3 (quoting *Burkhart v. Wash. Metro. Area Transit Auth.*, 112 F.3d 1207, 1213 (D.C. Cir. 1997)). As discussed at the November 6 Status Conference, this Court will determine what constitutes a violation and will advise the jury, if a jury decides this question, how to determine the number of violations that occurred, if any. Ex. 11 (11/6/2024 Conf. Tr.) at 38:10-15, 41:3-6. Mr. Andrien’s “count” of supposed DTPA violations must be excluded because it invades the legal province of the Court as to what “counts” as a DTPA violation at all.

Mr. Andrien’s violation count must be excluded for another, more fundamental reason: He should not be testifying that state law has been violated at all. *See, e.g.*, Ex. 8 (Andrien Depo. Tr.) at 36:15-37:5 (“So I do intend to offer opinions on the number of violations.”), 162:5-6 (“I know auctions were manipulated *and therefore violations.*”). An opinion that a party violated the DTPA is a textbook inadmissible legal opinion. To make that determination: (1) the Court supplies instructions based on the law; and (2) the jury weighs the evidence. No expert, Mr. Andrien or otherwise, is permitted to testify that Google did or did not violate a DTPA, because no expert is permitted to testify that conduct constitutes a violation of law. *See* Section I(E), *supra*. Because Mr. Andrien’s opinions contradict this precept, they must be excluded.

**C. Mr. Andrien’s Opinions Utilize No Reliable Methodology.**

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Mr. Andrien employs three steps to arrive at his penalty opinion. He purports to: (1) identify the number of DTPA violations Google supposedly committed; (2) analyze the benefit to Google from these supposed violations; and (3) assess a penalty on a per-violation basis, which when multiplied by the number of violations yields the total penalty. *See, e.g.*, Ex. 9 (Andrien Rpt.) ¶¶11(d)-(h). None of these steps is based on a reliable methodology, and so his penalty opinion should be excluded under Rule 702.

First, as noted, Mr. Andrien’s sole basis for finding the number of DTPA violations is Dr. Weinberg’s inadmissible, unsupported opinion that all auctions were impacted by Google’s alleged misconduct. Mr. Andrien merely repeats Dr. Weinberg’s opinion as a crucial fact, *see* Ex. 9 (Andrien Rpt.) ¶ 98, even though Dr. Weinberg made no finding as to liability, *see* Ex. 2 (Weinberg Rpt.) ¶ 12. From there, the only remaining analysis is to count the number of auctions that occurred. Whether these auctions included the programs the States challenge is irrelevant to Mr. Andrien: He was “asked to assume” that *every* auction was “indirectly affected” by the challenged programs. Ex. 9 (Andrien Rpt.) ¶ 98 & n.267; Ex. 8 (Andrien Depo. Tr.) 162:5-6. But the *sine qua non* of awarding penalties is proof of an actual deceptive act or practice by Google that harmed an ad buyer or seller. Without proof of harm, the assumption Mr. Andrien makes is unsupportable and presents a profound danger of confusion. This is not a reliable methodology; it is a massive leap from the Complaint to opinion, with nothing but assumptions provided by counsel in between.

Second, after counting the number of auctions and equating them (wrongly) with DTPA violations, the next step in Mr. Andrien’s stated methodology was to measure the incremental benefit to Google from the deception. *E.g.*, Ex. 9 (Andrien Rpt.) ¶ 11(f). But Mr. Andrien abandons his own stated methodology and basic financial reasoning when assessing Google’s “incremental

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benefit” from its alleged misconduct. After collecting evidence that projects direct benefits to Google from alleged misconduct, *see id.* ¶ 110 n.285, Mr. Andrien rejects that evidence that would, not incidentally, fail to justify his penalty figures. Instead, Mr. Andrien estimates Google’s *total* ad tech profits as a supposed proxy for the direct benefits Google obtained from *just the allegedly deceptive programs*. *Id.* ¶ 95 (Table 1). This assumes, without analysis or evidence, that *none* of Google’s ad tech profits arose from legitimate business activities.

Worse, when Mr. Andrien realized his calculation of the penalty he contends Google should pay exceeded his “estimation” of Google’s *profits* by an outlandish and unsupportable [REDACTED], *id.* ¶ 95 (Table 1), he pivoted to an alternative measure of Google’s “direct benefits”: Google’s total *revenue*, *see id.* ¶¶ 118, 123. But this ignores Google’s costs, treating revenue as a proxy for Google’s direct benefit from the alleged deception. Students of economics, whether they come by their knowledge from post-graduate education or running a lemonade stand, know that an enterprise’s benefit is the revenue it retains *net* of the expenditures it made. By ignoring this reality, Mr. Andrien abandons any pretext of applying *accepted* economic principles, and his chosen incremental-benefits methodology with it.

Mr. Andrien next purports to estimate “indirect” benefits from the alleged misconduct. Although Mr. Andrien considers indirect benefits an important part of his “incremental benefits” analysis, *see id.* ¶¶ 111, 116, he fails to quantify them or explain how he incorporates them into his civil penalties determination, *id.* ¶¶ 116-123. And when Mr. Andrien discusses indirect benefits to Google, he points to Google acquisitions that: (i) *precede* Google’s alleged misconduct and so *cannot* be benefits of the conduct, *id.* ¶ 121; and (ii) amount to improper antitrust opinions, as explained in more detail in the section concerning States’ expert John Chandler, *id.* ¶ 115; Section V, *infra*. Like his direct benefits analysis, Mr. Andrien’s indirect-benefits analysis is replete with

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analytical gaps and unwarranted inferential leaps, which render his analysis unreliable and warrant exclusion. *See* Section I(D), *supra*; *see also, e.g., Allen v. Vaksman Law Offices, P.C.*, 2021 WL 5474488, at \*8 (S.D. Miss. Sept. 30, 2021) (“Expert reports must include ‘how’ and ‘why’ the expert reached a particular result[.]”).

Third, Mr. Andrien’s opinion that each DTPA violation should carry a penalty of [REDACTED] [REDACTED] is the product of no methodology at all. It is a raw *ipse dixit*: no evidence or analysis supports it, and it cannot be tested against objective criteria. ***Mr. Andrien admitted this in his deposition:*** To decide on a penalty, Mr. Andrien simply thought to himself about potential penalties, discarding ones that seemed “too big.” Ex. 8 (Andrien Depo. Tr.) at 187:1-4.

Mr. Andrien started with what he considers the maximum penalty permitted by his violation-count “analysis.” That figure is “roughly [REDACTED], [REDACTED] [REDACTED].” Ex. 10 (Andrien Reb. Rpt.) ¶ 12. He then “realized, well, that’s [] a big number. I don’t think that would be an appropriate penalty.” Ex. 8 (Andrien Depo. Tr.) at 186:20-25. “So [he] started to think, okay, well, what if it [the per-violation penalty] was [REDACTED]. The penalty becomes [REDACTED].” *Id.* at 187:1-3. Thinking about that figure, Mr. Andrien “came to the same conclusion, [REDACTED] – is too big.” *Id.* at 187:3-4. He appears to have continued doing this ad hoc analysis, which involved picking round numbers and asking himself if the penalty was “a big number.” *Id.* at 186:15-25. Looking at [REDACTED] he again “said, well that gets to, like, [REDACTED]. And I still believe that’s – that’s too high.” *Id.* at 187:8-12. Like Goldilocks searching for a bowl of porridge that was not “too hot” or “too cold,” Mr. Andrien repeated this idiosyncratic process, iteratively asking himself questions about whether a potential penalty was “too big” or “too high” until he landed on a range *he* felt was appropriate: ***somewhere between \$7.2 billion and \$21.81 billion.*** *See id.* at 84:19-85:2.

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This stunning range, which Mr. Andrien backed into to achieve a desired result for his State clients, is entirely arbitrary. It is untethered to any reliable analysis. And the analytic gap between these numbers and any *actual* evidence is vast. To explain it, Mr. Andrien offers platitudes: “[I]t’s a range that I determined through my work, analysis, education, training, experience, looking at the record produced in this case, doing independent research.” *Id.* at 187:17-22. He calls his final penalty figure “holistic.” *Id.* at 220:4-9. But “holistic” is a euphemism Mr. Andrien deploys to mask the truth: His analysis is *not* based on *any* objective, demonstrable, or replicable analysis of the data or the evidence. Put simply, Mr. Andrien would tell the jury that since *he* is an expert, they should adopt *his* number. The law bars admitting this *ipse dixit* opinion.

**D. Mr. Andrien’s “State Allocation” Exercise Fails Under Any Standard.**

Mr. Andrien also performs a calculation in which he attempts to argue penalties should be allocated among the States not based on the number of violations in each state, but rather based on his estimate of Google’s U.S. ad-tech profits and the number of internet users in each State. Ex. 9 (Andrien Rpt.) ¶¶ 91-95. This should be excluded as irrelevant and unreliable.

The foundational “fact of consequence” to any award of penalties, *see* Federal Rule of Evidence 401, is whether each State’s DTPA statute was violated and, if it was, how many violations occurred in that State. Mr. Andrien’s analysis does not measure this. There is no basis for Mr. Andrien’s assumption that online auctions—the unit of conduct he evaluated as DTPA violations—occur in a 1:1 proportion to the number of household internet users in a given state. *See, e.g.,* Ex. 8 (Andrien Depo. Tr.) at 257:11-12 (“People use their internet subscriptions for all sorts of things.”). Ad auctions are between companies, not internet-connected people, so his metric is not relevant to any fact “of consequence” to the States’ DTPA claims. He is aware of no sources in which industry participants or analysts identify ad buyers or sellers in a given state by internet

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usage, as he did. *Id.* at 276:6-10. That is for good reason: there is *no reliable connection* between these variables. His opinions must be excluded under Rules 401, 402, 403 and 702.

**E. Mr. Andrien’s Analysis Of “The Economic Affect on The Person Against Whom The Penalty Is To Be Assessed” Is Unreliable Because He Evaluated The Wrong “Person.”**

Mr. Andrien next makes a stunning error. He purports to measure the financial performance and wherewithal of “Google” to pay his recommended civil penalties, *see* Ex. 9 (Andrien Rpt.) ¶¶ 77-90, 131-141, but he does so by evaluating the wealth of its much larger parent company, *Alphabet, Inc.* *See id.* ¶ 7 n.2 (stating he uses “the term ‘Google’ to refer *to both Google and Alphabet, Inc.*”). Mr. Andrien then relies on financial measures for *Alphabet*, both to opine that *Google*’s financial performance has been extraordinary and to opine that *Google* has the means to pay his recommended penalty. *Id.* ¶¶ 77-90, 131-41.

But *Alphabet*’s wealth is irrelevant and wildly prejudicial as a purported measure of *Google*’s wealth and ability to pay the gargantuan penalties Mr. Andrien urges. The Constitution does not permit, and no Court would allow, penalties to be imposed on a subsidiary for its own conduct based on the wealth of its non-party parent company. The Texas DTPA is plain on this point: in assessing penalties, the trier of fact “*shall* consider ... the economic effect on *the person against whom* the penalty is to be assessed.” Tex. Bus. & Comm. Code § 17.47(g)(4). Texas is not alone in limiting consideration of wealth solely to the defendant. To the contrary, the law focuses on the means and actions of the party that committed the violation and is suffering a penalty. The economic effect of a potential penalty on *Alphabet*, a non-party, is not relevant or admissible to support imposition of penalties on defendant *Google*.



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Google and Alphabet are not the same company. Alphabet is a publicly traded holding company that owns Google and many other large companies.<sup>28</sup> Despite Mr. Andrien’s extensive purported analysis of “Google’s” stock price, Google does not *have* publicly traded stock. In fact, for the majority of the time period he analyzes (the period of 2013-2023, encompassing when Alphabet was formed in 2015), Mr. Andrien is actually analyzing the stock price of *Alphabet* and *not* Google—a fact he obscures in footnotes buried in his report. *E.g.*, Ex. 9 (Andrien Rpt.) ¶ 78 n.214 (analyzing Alphabet Inc. Form 10-K for the fiscal year ended December 31, 2023).

Alphabet’s wealth is, quite literally, *no evidence* of Google’s wealth or ability to pay. *Salinas v. State Farm Fire & Cas. Co.*, 2012 WL 5187996, at \*4 (S.D. Tex. Feb. 23, 2012) (holding that financial impact on the parent company was inadmissible because “relevant financial data must be specific to the defendant, not its parent.”). It would be fatally prejudicial and reversible error to admit this evidence because it implies that penalties can be assessed against *Google* based on the size of its much larger parent company.

**F. Mr. Andrien’s Opinions Regarding Google’s Motive and Intent Must Be Excluded Under Bedrock Fifth Circuit Law.**

“Inferences about the intent or motive of parties or others lie outside the bounds of expert testimony.” *Greger*, 2021 WL 3855474, at \*9; *see also* Section I(F), *supra*. Mr. Andrien’s opinions are replete with improper ascriptions of intent and motive to Google—including statements that speculate as to *why* Google took certain actions. *See, e.g.*, Ex. 10 (Andrien Rebuttal Rpt.) ¶ 91. Instead of backing away from these opinions in his deposition, Mr. Andrien doubled down: “Google’s conduct is clearly shown that they have an *intention and a desire* to dominate this

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<sup>28</sup> *See, e.g.*, Ex. 12 (Rebecca Bellan, *Alphabet To Invest Another \$5B Into Waymo*, TechCrunch (July 23, 2024)).

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market.” Ex. 8 (Andrien Depo. Tr.) 82:12-18. Mr. Andrien’s opinions as to Google’s “intention,” “desire,” or motive cross the bounds of expert testimony and must be excluded.

**G. If Mr. Andrien Is Not Excluded Entirely, He Should Testify at A Live Daubert Hearing As A Remedy For His Persistent Obstruction At His Deposition.**

Mr. Andrien obstructed his deposition, depriving Google of a fair opportunity to fully test his qualifications or the basis for his opinions. For example, when asked whether he is an expert in certain fields, Mr. Andrien refused to answer, interposing his own objections:

Q. Well, you don’t hold yourself out as an expert in the processes of litigation, for example, conducted by the European Union in its litigation against foreign nationals, are you?

A. I would just say the same thing. I have experience in litigation that has happened outside the United States. I have probably more understanding and experience than the average juror. And whether or not that – that is – whether or not I’m an expert in that area is – is up to a judge to determine, not me.... I think that’s a legal determination.

Ex. 8 (Andrien Depo. Tr.) 307:9-23; *see also, e.g., id.* at 46:22-47:1 (“Q. [D]o you hold yourself out as an expert on online auction mechanics? A. [T]hat’s for a court to decide, whether I have expertise beyond what a [sic] average juror would have in that area.”).

Mr. Andrien obstructed examination into his opinions with the same gusto. He avoided answering yes or no to simple questions, substituting for the required candor his own, unilateral, unresponsive, and minutes-long narratives. When that failed, he resorted to asserting he had already answered the question (he had not). He often stated merely that he would testify to the opinions in his expert report and that questioning counsel should read them—refusing to explain the basis for them or even whether he *had* an opinion on a topic. *See, e.g., id.* at 35:14-36:2 (“Q. [Y]ou’re not giving any such opinion as to unlawful or anticompetitive conduct. True?” A. “I am giving the opinions that I listed in my reports. I plan to testify to those opinions without exception. To the extent that any of those opinions address that issue, then – then I’m going to testify to those

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opinions. To the extent they don't address that issue, then I'm not going to testify to those opinions."); *id.* at 36:11-13 ("[T]he best thing I can say is then you should look at my opinions and determine whether they do that or not. Because these are my opinions. This is what I intend to testify to.").

That form of obstruction—"read my reports"—is particularly problematic because Mr. Andrien's reports do *not* make clear what his opinions are. As one example, while Mr. Andrien's report claims he has assumed liability and therefore offers no liability opinions, Ex. 9 (Andrien Rpt.) ¶ 8 ("No opinions on liability are expressed herein."), he then offers numerous liability opinions, including under the guise that if he has read or been told something, he "understands" the matter and can testify to it as an expert, *see, e.g., id.* § IV.D ("***I Understand*** Google Has Committed Numerous Violations of State Deceptive Trade Practice Statutes"). This obstruction is a fundamental failure to appear and afford Google discovery on what opinions Mr. Andrien *actually* holds and has supported *through his own work*.

This combative, recalcitrant behavior persisted throughout the examination, despite Google's counsel's asserting more than 50 non-responsiveness objections and requests that the witness answer questions directly. Mr. Andrien plainly employed a strategy designed to evade and deflect providing direct answers to questions which, if answered directly, would reveal significant flaws and weaknesses in his theory and methodology in calculating the enormous and excessive civil penalties for which he advocates.

Mr. Andrien has been excluded before. In *United States v. Marr*, 2017 WL 1540815 (N.D. Cal. 2017), the United States Department of Justice noted bluntly that Mr. Andrien "is not an economic expert." United States' Opposition to Defendants' Motion in Limine to Admit the Testimony of Jeffrey Andrien, No. 14-cr-00580, 2017 WL 11439053, at Argument § 1.(a) (N.D.

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Cal. Apr. 5, 2017). The DOJ’s other criticisms of Mr. Andrien—that, for example, his analysis is not peer reviewed and was made for litigation, *id.* at Argument § 1.(b)—apply here as well. The district court in *Marr* excluded Mr. Andrien’s opinions, after acknowledging the DOJ’s numerous criticisms of Mr. Andrien as a non-economist offering only *ipse dixits*. *Marr*, 2017 WL 1540815, at \*6.

The way for Mr. Andrien to avoid his fate in *Marr* was not the obstructive route he chose of refusing to engage with questions in the hope that the infirmities in his opinions would not be laid bare. Instead, it was to form opinions grounded in appropriate qualifications and girded by a reliable methodology. Mr. Andrien has not done that here, and for that reason he should be excluded. Should the Court harbor any doubt on this score, the Court is free to order Mr. Andrien to appear for a live *Daubert* hearing, where Google trusts Mr. Andrien would be more willing to discuss his qualifications and opinions in the presence of the Court. *See e.g., Trinity Med. Services, L.L.C. v. Merge Healthcare Sols., Inc.*, 2020 WL 1309892, at \*4 (M.D. La. Mar. 19, 2020) (noting that district courts may hold a live hearing “[w]hen *Daubert* is invoked” “at which the proffered opinion may be challenged.”).

**IV. If Not Stricken as Improper Rebuttal, Dr. Deramus’s Penalty Calculations Should Be Excluded Under Rule 702.**

Plaintiffs proffered Dr. David DeRamus as an attempted do-over for their original expert on civil penalties, Jeffrey Andrien, a tacit concession of the unreliability of Mr. Andrien’s opinions. Several of Dr. DeRamus’s opinions, including his calculation of “ranges” of purportedly appropriate penalties for the States’ DTPA claims, should be stricken as improper rebuttal testimony, as explained in Google’s pending Motion to Strike. *See* ECF No. 613. If, however, the Court elects not to strike Dr. DeRamus’s improper rebuttals, both of his penalty calculations (Sections VI and VII of his Report) should be excluded under Rule 702.

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**A. Dr. Deramus’s Calculations of Civil Penalty “Ranges” And Suggestions For How To Calculate Them Are Improper Subjects For Expert Testimony.**

Experts can offer testimony *relevant* to civil penalties (e.g., the defendant’s net worth). But they cannot go further and suggest particular calculations or dollar amounts. Dr. DeRamus crosses that line by purportedly “quantifying a[n] appropriate deterrent penalty amount.” Ex. 13 (DeRamus Depo. Tr.) 77:16-78:16; *see also id.* at 8:23-9:8, 28:8-23, 209:4-9. Numerous decisions in the context of punitive damages exclude such expert testimony as improper and unhelpful. That precedent applies here because “the remedy of civil penalties is similar to the remedy of punitive damages.” *Tull v. United States*, 481 U.S. 412, 422 n.7 (1987); *see also Wal-Mart Stores, Inc. v. Forte*, 497 S.W.3d 460, 466 (Tex. 2016) (“[A] wide, standardless range of permissible penalties [] makes civil penalties much like exemplary damages”).

Experts simply cannot suggest “potential methods of measuring punitive damages” or the “potential range of punitive damages.” *Lea v. Wyeth, LLC*, 2011 WL 13193321, at \*4 (E.D. Tex. Sept. 16, 2011). Such expert testimony is “wholly prejudicial.” *See, e.g., id.* at \*4; *Burton v. Wyeth-Ayerst Labs. Div. of Am. Home Prods. Corp.*, 513 F. Supp. 2d 708, 716-17 (N.D. Tex. 2007) (excluding testimony regarding “the dollar amount of potential punitive damage awards, ranging from \$100 million on the low end to \$2.5 billion at the other extreme” as “wholly prejudicial”). More fundamentally, it cannot “help” the trier of fact because it invades a judgment call reserved exclusively to the trier. Thus, “experts cannot testify as to what the amount of punitive damages, if awarded, should be,” *Salinas*, 2012 WL 5187996, at \*5, because (i) the inquiry involves “social, rather than economic concerns” and does not “require any particular expertise,” *see Lopez v. Geico Ins. Co.*, 2013 WL 9720887, at \*2 (D.N.M. Oct 9, 2013), and (ii) the factfinder has the exclusive right to select from “various competing and diverse theories from which the trier of fact may

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choose according to personal feeling, experience, or reaction to a particular case,” *see Voilas v. General Motors Corp.*, 73 F. Supp. 2d 452, 463-64 (D.N.J. 1999).

It makes no difference that Dr. DeRamus dresses up his calculations in the language of economics. Experts “may not testify about the economically optimal level of punitive damages,” either. *Diamond Resorts U.S. Collection Dev’p, LLC v. Pandora Mktg., LLC*, 2023 WL 9659943, at \*7 (C.D. Cal. July 26, 2023). In fact, courts have prohibited experts from applying both of Dr. DeRamus’s proffered methodologies: both (i) the formula measuring “harm caused multiplied by the reciprocal of the probability of being found liable,” *id.*, and (ii) the opinion suggesting a penalty sufficient “to provide incentive for shareholders to demand change,” *Anderson v. Boeing Co.*, 2005 WL 6011245, at \*2 (N.D. Okla. Aug. 2, 2005).

**B. Calculations Based on Google’s “Expected Incremental Benefit” And The “Probability Of Detection” Are Inadmissible.**

**1. Dr. DeRamus Measures the Wrong “Expected Benefit.”**

Dr. DeRamus’s first set of calculations (Section VI of his Report) uses a formula dividing Google’s expected benefit from the allegedly unlawful conduct by the probability of detection. Ex. 14 (DeRamus Depo. Tr.) 9:21-10:2; Ex. 14 (DeRamus Rpt.) ¶¶ 28-29 & § VI. But he measures *the wrong thing* in the numerator. Dr. DeRamus admits the “expected benefit” means the benefit “from the wrongdoing,” Ex. 13 (DeRamus Depo. Tr.) 110:8-23, and the numerator should “effectively” compare a world with the alleged wrongdoing to a but-for world without it, *id.* 29:8-21. The economic literature agrees.<sup>29</sup>

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<sup>29</sup> See Ex. 15, A. Polinsky & S. Shavell, *The Theory of Public Enforcement of Law*, in *Handbook of Law and Economics*, Vol. I, at 407 (2007); Ex. 16 (E. Combe *et al.*, *Cartels: the Probability of Getting Caught in the European Union*, Bruges Eur. Econ. Res. Papers, at 1 & n.2 (March 2008) (describing “expected net illegal gain” as the relevant metric). Dr. DeRamus also highlighted an article by Wouter Wils, who agrees that the relevant “gain,” from the economic perspective of optimal deterrence, is “the expected gain from the violation” of law. Ex. 17, W. Wils, *Optimal Antitrust Fines: Theory and Practice*, in *World Competition*, Vol. 29, No. 2, at 17 (June 2006).

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Here, however, Plaintiffs do not allege that the *existence* of the Google algorithms at issue (RPO, DRS, and Bernanke) was illegal in itself. Rather, they assert it was deceptive to implement them without adequately *disclosing* them. *See* ECF No. 260 at 2 (“Without disclosing that it no longer operated using a sealed second-price [auction] model, Google changed the rules to enhance its profits.”). Plaintiffs’ purported auction expert—on whom Dr. DeRamus relies—says the same. Ex. 2 (Weinberg Rpt.) ¶ 219 (“not disclosing” DRS); *id.* ¶ 258 (“concealing Projects Bernanke and Global Bernanke”); *id.* ¶ 283 (“concealing RPO”); *see also* Ex. 29 (Chandler Rpt.) ¶ 360 (“For some period of time, Google failed to disclose these changes [*i.e.*, RPO, DRS, and Bernanke].”).

Dr. DeRamus does not measure the benefit of this alleged *deception*. He instead uses Google’s entire expected profit *from the programs themselves*—programs that neither Plaintiffs nor their other experts contend would have been unlawful if they had been sufficiently disclosed. Although Dr. DeRamus candidly admitted that the analysis of optimal deterrent penalties for a *nondisclosure* “depends on what that but-for world would have looked like *with the disclosure*,” Ex. 13 (DeRamus Depo. Tr.) at 41:2-13, the “basic question” informing the numerator of his formula is “how much money did Google make from *implementing* RPO, DRS, and Bernanke,” Ex. 13 (DeRamus Depo Tr.) 51:20-52:16; *see also id.* at 46:16-47:3. He thus includes “every dollar of profit” he believes Google expected from each program. *Id.* at 81:23-82:7, 83:16-84:14, 105:21-108:20. He acknowledges having calculated nothing tied specifically to the alleged nondisclosures and claims he “would need to think further on that” before doing so. *Id.* at 53:21-54:9, 56:9-24, 58:18-59:24. He therefore offers nothing relevant to Plaintiffs’ claims.

“[A]ny model supporting a plaintiff’s damages case must be consistent with its liability case[.]” *Comcast Corp. v. Behrend*, 569 U.S. 27, 35 (2013). Dr. DeRamus’s Section VI opinions should therefore be stricken as irrelevant and unreliable. *See, e.g., Estate of Vane v. The Fair, Inc.*,

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849 F.2d 186, 188 (5th Cir. 1988) (rejecting expert’s copyright damages model using “a lump-sum figure for profits attributable to the television commercials ... without accounting for the fact that the infringed material constituted only a fraction of any given commercial”).

**2. Dr. DeRamus Unreliably Estimates “Expected Benefits.”**

Dr. DeRamus’s opinions on Google’s subjectively expected annual revenues are simply copied from three of the millions of documents produced in this litigation. He “opines” that Google expected \$[REDACTED] in annual Bernanke revenue because a slide in a presentation summarizes a 1-day experiment and says, “[REDACTED].” Ex. 18 (DeRamus Depo. Ex. 5) at -895. He pulls his DRS figure from an unidentified compilation of meeting notes, Ex. 19 (GOOG-DOJ-32280412) at -447 (“[REDACTED]”), and his RPO figure from a “Halloween update” email, Ex. 20 (GOOG-AT-MDL-B-001114919) (RPO “[REDACTED]”).

Relying on the Third Circuit’s opinion in *ZF Meritor*, the Fifth Circuit recently explained that “to rely on the estimates of others,” an expert must—at a minimum—“explain why he relied on such estimates and must demonstrate why he believed the estimates were reliable.” *Jacked Up, L.L.C. v. Sara Lee Corp.*, 807 F. App’x 344, 348-49 (5th Cir. 2020) (quoting *ZF Meritor, LLC v. Eaton Corp.*, 696 F.3d 254, 294 (3d Cir. 2012)). ***The expert excluded in ZF Meritor for unsubstantiated reliance on an estimate was Dr. DeRamus.*** There, Dr. DeRamus’s opinion was found unreliable because his estimate of “incremental revenues that [a party] would have earned” relied “on a one-page set of profit and volume projections” created by the party. 696 F.3d at 291-92. Although he claimed the party’s estimate was reliable because it was “relied on ... in making business decisions” and “presented to [the party’s] Board of Directors,” Dr. DeRamus’s general awareness of “the circumstances under which the [estimate] was created and the purposes for which it was used” could not overcome his lack of knowledge regarding “who initially calculated



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the [] figures” or the “assumptions on which the [estimate’s] price and volume estimates were based.” *Id.* at 292-93. The district court’s assessment was even less charitable, observing that Dr. DeRamus had sponsored damages estimates based on “the slenderest of analytical threads,” and that his reliance on “estimates without knowing either the qualifications of those who actually prepared them or the validity of the underlying data and assumptions upon which [they] were based,” 646 F. Supp. 2d 663, 667-68 & n.14 (D. Del. 2009), made his report “the worst expert report [the court had] ever read in all [her] years on the bench,” Ex. 21 (*ZF Meritor* Hrg. Tr., 8/27/09) at 5:22-24.

Put bluntly, when he simply regurgitates Google’s estimates at face value, Dr. DeRamus is not providing admissible *expert* testimony at all. “[N]othing about ... reviewing the records and engaging in addition and subtraction[] suggests it can be mastered only by specialists in the field with particularized expertise.” *United States v. Davis*, 53 F.4th 833, 849 (5th Cir. 2022); *see also Technip Offshore Contractors v. Williams Field Servs.*, 2006 WL 581273, at \*6 (S.D. Tex. Mar. 7, 2006) (Rosenthal, J.) (excluding damages expert as “unhelpful because the damages can be determined as a matter of arithmetic computation without the aid of expert testimony”). Dr. DeRamus does not even do math when purporting to determine Google’s expected benefits from the complex programs at issue. Experts cannot simply repeat plain-English statements from documents produced in discovery. *See, e.g., Tisdale*, 2024 WL 2033933, at \*5.

Dr. DeRamus claims he “would *never* simply pull a number from a random document,” Ex. 13 (DeRamus Depo Tr.) 120:2-16, and independently determined the figures “reasonably reflect the actual realized and expected future benefits to Google of that conduct,” Ex. 14 (DeRamus Rpt.) ¶ 102. But he did no such thing. As to Bernanke, for example, Dr. DeRamus does not know who wrote the Bernanke presentation he relied upon, what the “gTrade team” (the

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authoring group) is, who the “[REDACTED]” buyers reflected in the experiment are, or how the underlying experiment produced the \$[REDACTED] revenue estimate. Ex. 13 (DeRamus Depo. Tr.) 145:15-146:3, 134:5-11, 154:9-155:23. Worse, before his deposition, Dr. DeRamus did not even know what the \$[REDACTED] revenue figure *was*. His report claimed that figure represented “incremental revenues” to Google, Ex. 14 (DeRamus Rpt.) ¶ 16, but he (begrudgingly) acknowledged in his testimony that it does not, Ex. 13 (DeRamus Depo. Tr.) 140:3-10, 147:16-24. In brief, the document reflected that the “company” (i.e., Google LLC) would “[REDACTED] [REDACTED].” Ex. 14 (DeRamus Rpt.) ¶ 16; *see also id.* ¶ 115 & n.207. But the very slide from which Dr. DeRamus copies and pastes makes clear that [REDACTED] [REDACTED]. Ex. 18 (DeRamus Depo. Ex. 5) at -895; Ex. 13 (DeRamus Depo. Tr.) 132:5-8. Because the document shows that [REDACTED] [REDACTED], *id.* at 129:9-17, Dr. DeRamus admitted he would “need to go through and do [further] calculations” to derive the actual “incremental net profit, net of the loss in that given year,” *id.* at 142:7-23.

Thus, if Dr. DeRamus simply copies his “expected benefit” figures from documents produced in discovery, he is not providing “expert” testimony permitted under Rule 702, and if he purports to have done a sufficiently “independent” estimate, he plainly has not.

**3. Dr. DeRamus Unreliably Estimates the Probability of Detection.**

Dr. DeRamus purports to have derived probabilities of detection by “drawing from research.” *Id.* at 31:22-32:15. He cites just two figures from empirical studies of price fixing cartels. *See* Ex. 14 (DeRamus Rpt.) ¶ 103 & n.191. One, a study based on “price fixing indictments for the period 1961-1988,” estimated the annual probability of detection at “between 13% and 17%.” *Id.* ¶ 103 (citing Ex. 22, Bryant & Eckard Study). The other studied “cartels” in the

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European Union and “estimated the probability of detection to be between 12.9% and 13.2%” per year. *Id.* ¶ 57 n.191 (citing Ex. 16, Combe Study). Dr. DeRamus ultimately applies a range “between 10% [and] 33%” in his Section VI calculations. *Id.* ¶ 108.

Dr. DeRamus mischaracterizes the two studies that form the only objective basis for his probability estimates. His calculations assume the alleged deception would continue for 20 years or more, but his methodology makes no adjustment to the probability of detection to account for prolonged durations. Ex. 13 (DeRamus Depo. Tr.) 89:4-91:3; *see generally* Ex. 14 (DeRamus Rpt.) § VI.D. His own sources state plainly that using the data on *annual* probabilities to estimate probabilities over multiple years is “improper.” *See* Ex. 16 (Combe Study) at 1-2. As Dr. DeRamus acknowledged, a 10% annual probability translates to 19% over the course of two years, and 88% over the course of 20 years. Ex. 13 (DeRamus Depo. Tr.) 100:14-101:2.

Dr. DeRamus’s misapplication of the research data leads him to employ an unreliable, false methodology. There is no justification for a *flat* 10-33% probability over 20 years based on the studies of *annual* probabilities he used (measured between 12% and 17%). The “analytical gap between the studies on which he relied and his conclusions [is] simply too great,” and his opinions on the probability of detection are “thus unreliable.” *Knight*, 482 F.3d at 355.

**C. Dr. DeRamus’s Arbitrary Stock-Drop Calculations Are Inadmissible.**

In Section VII, Dr. DeRamus turns to the stock market as an “alternative way to determine an appropriate penalty amount.” Ex. 13 (DeRamus Depo. Tr.) 209:4-9. He claims to analyze the stock-price impacts of 65 events: 48 days when a penalty against Google was announced, and 17 days when an investigation was announced. Ex. 14 (DeRamus Rpt.) ¶¶ 138-39. According to this “event study,” all but one event was associated with stock drops “contained within two standard deviations” of the stock’s average daily movement. *Id.* The one “exception” is “November 30, 2010,” when Dr. DeRamus claims the “European Commission’s [antitrust] investigation of Google

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Search [was] announced,” and which led (years later) to three fines imposed for a “total of \$9.5 billion.” *Id.* ¶¶ 135 n.239, 140-41. That day, Google’s “adjusted stock return dropped by 3.9%,” a deviation in excess of two standard deviations from expectation. *Id.* ¶ 140 & fig.23. On that basis, Dr. DeRamus concludes that “none of the other penalties ... were large enough to impact [Alphabet’s] stock market prices” sufficiently to “induce shareholders to force managers to change their future conduct.” *Id.* ¶ 141. He therefore opines that “a penalty of \$25 billion” (adjusting from \$9.5 billion for time value since 2010) is “necessary.” *Id.* ¶ 145-46.

**1. This Methodology is Not Accepted in Law or Economics.**

For good reason, “other than [in] securities fraud class action litigation,” the “event study methodology has been universally rejected by Federal Courts.” *Perfection Corp. v. Lochinvar Corp.*, 812 N.E. 2d 465, 471 (Ill. Ct. App. 2004). The law is “unwilling[] to entrust the results [of a] case to the vagaries of the market” unless it must, so courts “which have adopted event studies have done so ... only in stockholder class action or derivative suits alleging fraud-on-the-market.” *La Salle Talman Bank, F.S.B. v. United States*, 45 Fed. Cl. 64, 82-83 (1999), *aff’d in relevant part, vacated in part on other grounds*, 317 F.3d 1363 (Fed. Cir. 1999).

Economists agree. Despite a broad “economic literature on deterrence [and] the role of penalties,” Ex. 14 (DeRamus Rpt.) ¶ 27, Dr. DeRamus purports to invent a completely new way of doing things, untested by peer review—he has “not seen anything in the literature that talks about deriving a specific penalty amount based on the company’s stock price.” Ex. 13 (DeRamus Depo. Tr.) 212:18-213:21. The absence of “peer review and publication” or “general acceptance” alone suffice to exclude Dr. DeRamus’s event study. *Hathaway*, 507 F.3d at 318.

**2. Dr. DeRamus’s Stock-Drop Methodology Is Unreliable.**

Dr. DeRamus’s use of a single-firm event study (*i.e.*, looking only to Alphabet’s stock, rather than to a portfolio) is also unreliable. Such studies suffer from “methodological constraints”

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that “limit their utility,” in particular because the “small sample sizes may limit statistical power” and because it is “extremely difficult to isolate the price impact of any one piece of information.” *In re Petrobas Securities*, 862 F.3d 250, 278-79 (2d Cir. 2017). Thus, “[i]n academic research, event studies are almost exclusively conducted with large samples of securities from a number of different firms.” *Carpenters Pension Trust Fund of St. Louis v. Barclays PLC*, 310 F.R.D. 69, 85 (S.D.N.Y. 2015).<sup>30</sup>

Further, the economic research shows that Dr. DeRamus’s methodology is unreliable because it focuses on just two windows of public information: the date on which an enforcement action is announced, and the date on which the fine is imposed. First, the 17 “announcement dates” are not reliable indicators of the impact of enforcement actions on Alphabet’s stock price. A study of antitrust enforcement actions in the EU, for instance, found that “the market seems to anticipate that investigations may soon take place” even before the first identifiable, public indication.<sup>31</sup> Another study could not pinpoint a statistically significant stock-drop on the announcement date, but nevertheless found that fined corporations were “out-performed” by un-fined corporations in the long term, reflecting that the fines affected stock prices over time rather than on a single date in isolation.<sup>32</sup> Yet further empirical research shows that “misconduct typically prompts a sequence

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<sup>30</sup> See also A. Brav. & J. Heaton, *Event Studies in Securities Litigation: Low Power, Confounding Effects, and Bias*, 93 Wash U. L. Rev. 583, 586 (2015) (“Importing a methodology that economists developed for use with multiple firms into a single firm context creates three substantial difficulties: low statistical power, confounding effects, and bias.”); J. Fisch, *The Trouble with Basic: Price Distortion After Halliburton*, 90 Wash. U. L. Rev. 895, 920 (2013) (“[T]he standard event study methodology produces a large number of errors when applied to a single firm and single event[.]”).

<sup>31</sup> L. Aguzzoni *et al.*, *The Effect of EU Antitrust Investigations and Fines on a Firm’s Valuation*, J. Indus. Econ., Vol. LXI, No. 2 (June 2013), at 309.

<sup>32</sup> J. Strydom *et al.*, *The Impact of Regulatory Fines on Shareholder Returns*, S. African J. Bus. Mgmt., Vol. 46, Iss. 4, pp. 85-96, at 91 (2015).

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of public announcements that can stretch over several years,” such that relying on “only one or two of these announcements” causes researchers to “misinterpret empirical results.”<sup>33</sup>

Here, the November 30, 2010 event—supposedly “the day the initial investigation [by the European Commission] into allegations that Google has abused a dominant position in online search was announced,” *see* Ex. 14 (DeRamus Rpt.) ¶ 140—is at least nine months *after* the market learned of that investigation. A swath of articles published on February 24, 2010 declared, “the European Commission has launched an anti-trust investigation against Google,”<sup>34</sup> to say nothing of *Google’s own announcement* on its “Public Policy Blog” that same day.<sup>35</sup>

Second, roughly 74% (48 of 65) of the “events” Dr. DeRamus considers are not useful. The date on which a penalty is imposed would reflect a material stock drop only if the market seriously underestimated the result of an already-public enforcement action. Research shows that one should not expect material stock-price impacts on the date a fine is imposed because investors have already baked their expectations into the stock price.<sup>36</sup> Dr. DeRamus admits this. Ex. 13 (DeRamus Depo. Tr.) 303:13-18, 304:14-19. But he does not control for it in his study.

Dr. DeRamus’s failure to account for other dates on which material information was made public renders his event study unreliable. *See, e.g., Jaroslawicz v. M&T Bank Corp.*, 2024 WL 474846, at \*21-22 (D. Del. Feb. 7, 2024); *Bricklayers & Trowl Trades Int’l Pension Fund v. Credit*

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<sup>33</sup> Ex. 23 (J. Karpoff *et al.*, *Database Challenges in Financial Misconduct Research*)

<sup>34</sup> Ex. 24 (The Telegraph, *Google under investigation for alleged breach of EU competition rules*); *see also* Ex. 25 (CNN Money, *Google in EU antitrust inquiry*); Ex. 26 (TechCrunch, *EU Opens Antitrust Investigation Into Google. Microsoft’s Fingerprints Are Everywhere*).

<sup>35</sup> Ex. 27 (Google Public Policy Blog).

<sup>36</sup> *See, e.g., L. Aguzzoni et al., The Effect of EU Antitrust Investigations and Fines on a Firm’s Valuation*, J. Indus. Econ., Vol. LXI, No. 2 (June 2013), at 308, 317 (finding no significant stock effect of “annulments or upholding judgments” imposing fines, which shows “that the market tends to have some reasonably good expectations about what is likely to be the final outcome of antitrust proceedings”).

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*Suisse First Boston*, 853 F. Supp. 2d 181, 189-90 (D. Mass. 2012). This is especially so in a single-firm event study that would not pass muster “in the relevant field” of economics, meaning it cannot be “employ[ed] in the courtroom,” either. *Kumho Tire*, 526 U.S. at 152.

**3. Dr. DeRamus’s Stock-Drop Methodology Uses an Arbitrary Threshold And Circular Reasoning.**

The central premise of Dr. DeRamus’s stock-drop analysis is that, to incentivize shareholder action, the stock price must drop at least two standard deviations more than usual. Ex. 13 (DeRamus Depo. Tr.) 238:19-239-24. But as Dr. DeRamus admits, there is *no* data or research supporting the notion that shareholders will “notice” or “take action” only if an event causes at least a two-standard-deviation stock-drop. *See id.* at 247:8-24, 253:9-20, 249:8-17. The two-standard deviation threshold is an “arbitrary” reference point used as a shorthand for probabilities of causation. *Turpin v. Merrell Dow Pharma., Inc.*, 959 F.2d 1349, 1353 n.1 (6th Cir. 1992); *see also, e.g., Kadas v. MCI Systemhouse Corp.*, 255 F.3d 359, 362 (7th Cir. 2001) (Posner, J.) (same). Dr. DeRamus admits this, Ex. 13 (DeRamus Depo. Tr.) 247:8-24, 253:9-20, including that the two-standard-deviation metric (equating roughly to the 5% significance level) is simply a statistical rule of thumb for the likelihood that correlation indicates causation, *id.* at 249:8-17. There is no justification for using this measure in determining what stock-price movement is economically “necessary” to achieve deterrence.

Worse, Dr. DeRamus admits he can perform his event study “without knowing anything about this case,” Ex. 13 (DeRamus Depo. Tr.) 239:4-10, because “it’s not derived from this conduct. It’s derived from Google stock price,” *id.* at 253:21-254:13. He admits his conclusions would be the same “even if the jury were to determine the range of actionable conduct or that the actual legal violations were *less* than” what Plaintiffs allege. *Id.* at 255:3-14. The only thing Dr. DeRamus shows is how large a dollar amount is associated with two standard deviations of price

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movement in the stock of one of the world's largest companies. This analysis, which urges a penalty be imposed based *solely on wealth* and not on the conduct alleged to have been unlawful, is irrelevant and unlawful. *See Mathias v. Accor Economy Lodging, Inc.*, 347 F.3d 672, 677 (7th Cir. 2003) (explaining that a “defendant’s wealth is not a sufficient basis for awarding punitive damages,” lest “punishment depend on status rather than conduct”).

Even worse yet, by arbitrarily selecting a two-standard-deviation threshold, Dr. DeRamus foreordained that the “appropriate” penalty would be many billions of dollars. He effectively opines that the penalty must be \$X because a fine lower than \$X will have a lesser impact than a fine of \$X, with “X” calculated simply by multiplying Alphabet’s market capitalization by twice its stock price’s standard deviation. As economists recognize, a model requiring that “stock prices [] show statistically significant abnormal returns” at the 95% confidence level to be “material” has “implicitly *defined* materiality to mean a 1.96 standard deviation price move.” Brav & Heaton, *supra* note 30, at 603; *see also* Fisch & Gelbach, *supra* note 30, at 106.

In sum, by arbitrarily defining a stock-drop of two standard deviations as necessary, Dr. DeRamus assumes the conclusion. This is a *tautology*, not evidence. Indeed, Dr. DeRamus testified that he “wouldn’t use” the same methodology unless he *already believed* that a penalty in the many billions of dollars was the correct result. Ex. 13 (DeRamus Depo. Tr.) 256:16-22. Such “circular reasoning” is inadmissible. *Ayala v. Aranas Cnty.*, 2018 WL 9802070, at \*2 (S.D. Tex. June 21, 2018); *Clark v. Takata Corp.*, 192 F.3d 750, 757 (7th Cir. 1999).

**4. The Stock-Drop Methodology Is Inadmissible Because It Would Penalize Google Based on The Wealth Of Nonparty Alphabet.**

Even setting aside the fatal flaws inherent in the approach, Dr. DeRamus’s stock-drop methodology must be excluded because it does not measure the effect of a penalty on Google, but rather the effect on Google’s parent company, *Alphabet*. As a matter of law, *Alphabet’s* financial



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condition is irrelevant to determining an appropriate penalty, if any, to impose on *Google*, so this opinion does not measure any “fact of consequence.” Fed. R. Evid. 401.

Google is the Defendant here. It is “is owned by Alphabet Inc., a publicly traded company,” FAC ¶ 32, but it is not the same as Alphabet. “Alphabet,” not Google, is the “public company,” as Dr. DeRamus acknowledges. Ex. 14 (DeRamus Rpt.) ¶ 36. And while Google may be its most well-known subsidiary, Alphabet owns a number of other companies with distinct lines of business including automated driving (Waymo), healthcare (Verily), and drones (Wing).<sup>37</sup>

Because Dr. DeRamus calculates penalties according to his intended “impact on *Alphabet*’s stock price,” *id.* ¶ 170, his opinion is irrelevant, prejudicial, and must be excluded. No DTPA statute permits a company to be penalized based on the wealth of its parent. And Courts prohibit reference to a parent company’s finances as a metric for sanctions. *Salinas*, 2012 WL 5187996, at \*4 (expert’s proffered testimony “regarding the relative impact of exemplary damages on State Farm’s parent company” was “inadmissible because ‘relevant financial data must be specific to the defendant, not its parent’”); *see also United States v. Magnesium Corp. of Am.*, 2006 WL 1699608, at \*3 (D. Utah June 14, 2006). Because “alter ego was not litigated” or even pleaded, including Alphabet’s “financial condition in the determination of punitive damages for [Google] is not appropriate.” *See Dangerfield v. Star Editorial, Inc.*, 97 F.3d 1458, at \*4 (9th Cir. 1996). This alone requires exclusion of Dr. DeRamus’s suggested penalty against *Google*.

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<sup>37</sup> *See, e.g.*, Ex. 12, TechCrunch, *Alphabet to invest another \$5B into Waymo* (July 23, 2024).

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**D. Both Of Dr. Deramus’s Penalty Calculations Are Contrary to Law Because They Are Untethered From Any Quantum Of Harm.**

Dr. DeRamus misses the mark in another way. He has not even “tried to quantify” a “dollar value of the harm” caused by Google’s allegedly unlawful conduct. Ex. 13 (DeRamus Depo. Tr.) 189:11-190:8. Neither of his calculations involves the alleged harm in any way.

The law *requires* that punitive sanctions be calculated by reference to the harm caused by unlawful conduct. The “most commonly cited indicium of an unreasonable or excessive punitive damages award is its ratio to the actual harm inflicted[.]” *BMW of N. Am., Inc. v. Gore*, 517 U.S. 559, 580 (1996). For example, when a court calculated a \$280 million civil penalty against DISH for 66 million violations of a telemarketing statute, but “based the penalty entirely on DISH’s ability to pay, setting it at 20% of a year’s profits,” that was “a problem,” because “the legal system bases civil damages and penalties on harm done, not on the depth of the wrongdoer’s pocket.” *United States v. Dish Network L.L.C.*, 954 F.3d 970, 980 (7th Cir. 2020). The Seventh Circuit remanded for a re-calculation “start[ing] from harm rather than wealth.” *Id.*

It would therefore be unlawful to award a penalty based on either of Dr. DeRamus’s calculations because neither references (much less “starts from”) harm. Because “it is appropriate to exclude” expert testimony that is “based on an erroneous legal premise,” and Dr. DeRamus’s “harm free” penalty opinions apply the wrong legal standard, they must be excluded on this basis, too. *Southard v. United Regional Health Care Sys., Inc.*, 2008 WL 4489692, at \*2 (N.D. Tex. Aug. 5, 2008); *see also Allegan Sales, LLC v. UCB, Inc.*, 2016 WL 8222619, at \*3 (E.D. Tex. Nov. 7, 2016) (damages opinion “properly excludable under Rule 702(a) as being contrary to law or as not helpful to the trier of fact”).

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**V. Professor Chandler’s Opinions on Fairness, Transparency, Expectations, Conflicts Of Interest, And Antitrust Matters Are Unreliable And Should Be Excluded.**

Dr. John Chandler, a Clinical Professor of Marketing at the University of Montana, is a statistician and a data scientist. He offers opinions as an ethicist and antitrust expert. He is neither. As to opinions regarding what is “fair,” “transparent,” or a “conflict of interest,” supposedly relevant to the States’ DTPA claims, Dr. Chandler’s opinions are based solely on his personal experiences as an online marketing consultant. These opinions should be excluded as irrelevant under Rules 401 and 402, and prejudicial under Rule 403, because no component of any statute makes these a fact of consequence for the claims, much less imposes liability on that basis. These opinions should also be excluded under Rule 702. Dr. Chandler applies no known methodology and offers no explanation of how his personal experiences could permit him to speak for millions of companies in the marketing industry. Dr. Chandler’s antitrust opinions suffer from similar flaws. He opines that Google “dominates” the ad tech industry and that open web display advertising is not substitutable for other forms of advertising, yet he lacks the expertise and methodology to reach these determinations.

Dr. Chandler has not done the work necessary to support his opinions, which do not fit the facts and are an *ipse dixit* requiring their exclusion. What remains of his affirmative opinions are mere recitations of facts, not a proper subject of expert testimony. *See, e.g., Escalante v. Creekside Logistics, LLC*, 2019 WL 9135758, at \*8 & n.3 (W.D. Tex. Feb. 12, 2019) (“[E]xpert testimony is of little value, and should not be admitted, to the extent that it merely synthesizes fact evidence into a narrative form.”). As a result, both his affirmative and rebuttal opinions, all of which are tainted by these issues, must be stricken.

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**A. Dr. Chandler’s Opinions About “Fairness” And “Transparency” Are Unreliable, Irrelevant, And Improper.**

Dr. Chandler opines that Google “programs and practices jeopardized, and detrimentally affected, transparency and fairness of the auctions in which they were employed.” Ex. 29 (Chandler Rpt.) ¶ 23(17); *see also id.* ¶ 23(11)-(16) (subsidiary opinions). But these opinions are not grounded in any recognized methodology, any published industry standards, or even any authoritative definitions of those terms. Instead, they reflect only Dr. Chandler’s personal beliefs concerning what his ideal auction would look like, rendering them unreliable and irrelevant. Because these opinions will not aid the jury in answering any relevant question and will only cause confusion, they must be excluded under Rules 401, 402, 403, and 702.

**1. Dr. Chandler’s Fairness and Transparency Opinions Are *Ipse Dixit*, Unmoored From Any Reliable Methodology.**

Dr. Chandler’s position that Google’s online auctions were not “transparent” or “fair” is based solely on his personal beliefs about how online auctions should be built, a framework that violates the bedrock principles that expert opinions must relate to a “fact of consequence,” Fed. R. Evid. 401, and employ a reliable methodology, Fed. R. Evid. 702, rather than idiosyncratic personal opinion, Ex. 29 (Chandler Rpt.) ¶ 18(5) n.9 (“Based on my industry experience, *I believe* a fair and transparent online auction *would be built* on the principles of equal access to information and a bidding process free from bias or preferential treatment.”). Further, Dr. Chandler invents outcome-oriented definitions of and rules for “fairness” and “transparency,” which are free from attribution to any outside authority. *E.g., id.* ¶ 346. And he fails to link his experience in the ad tech industry to his conclusions in any sound manner. For instance, he eschews published industry guidelines, and he does not know if any online auction in existence meets his criteria. Ex. 28 (Chandler Depo. Tr.) at 261:23-262:4. A reliable methodology is foundational to, and mandatory

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for, the admission of expert testimony. *Hathaway*, 507 F.3d at 318. Dr. Chandler’s lack of one is fatal to his fairness and transparency opinions.

First, while claiming to rely on his “work experience,” Ex. 29 (Chandler Rpt.) ¶ 15, and the “norms in the industry,” Ex. 28 (Chandler Depo. Tr.) 171:7-17, Dr. Chandler fails to apply the very standards he claims apply in his professional field to his work as an expert, which mandates exclusion of his opinions. *See, e.g., Pipitone*, 288 F.3d at 244 (requiring experts to “employ[] in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field”). He notes there are organizations that “publish[] guidelines governing online advertising,” “including information about fairness and transparency.” Ex. 28 (Chandler Depo. Tr.) 265:3-19 (discussing the Advertising Research Foundation). Indeed, when “discussing fairness and transparency with [his] students” at the University of Montana, Dr. Chandler draws upon “entities like the American Marketing Association[,] which publishes a code of ethics” because they contain “generally accepted standards of ethics within marketing in terms of fair dealing.” *Id.* at 15:18-25, 273:16-274:8.

For his assignment in *this* case, however, Dr. Chandler chose to ignore those standards. *E.g., id.* at 274:13-16 (“Q. You didn’t rely on the AMA standard of ethics for any of your opinions, right? A. That’s correct. Those ethical standards are not part of my reliance list.”); *id.* at 15:23-16:1 (disclaiming reliance on the American Marketing Association for his work in this case)—nor did he substitute any authoritative standards in their place. Instead, Dr. Chandler specifically confirmed that his description of how he “believe[s] a fair and transparent online auction would be built” was *not* based on any source other than himself. *Id.* at 265:20-24 (“Q. Did you derive your Footnote 9 from materials you reviewed from the Advertising Research Foundation, the Internet Advertising Bureau, or the 4A’s? A. I’m basing Footnote 9 on my industry experience,

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not on information from those organizations.”). Dr. Chandler relies on his experience at his private consulting business, which he admits is “not a major player” in the online advertising industry. *E.g., id.* at 36:5-7 (“Q. Do you consider Data Insights a major player in the online advertising industry? A. I do not.”). Dr. Chandler’s unexplained disregard for the standards he claims apply in his field renders his opinions unreliable. *See, e.g., Davis v. Cisneros*, 2024 WL 3799461, at \*7 (W.D. Tex. Aug. 12, 2024) (finding an expert witness “has not reliably applied his methodology to the facts of the case because he does not apply the [technical] standards he purports to utilize” and “ignores provisions” of an applicable handbook).

Second, Dr. Chandler applies no methodology to link his personal experiences to his opinions. He claims his “primary methodology” involves “applying his 25 years working in digital marketing.” Ex. 29 (Chandler Rpt.) ¶ 22. While experience alone can potentially qualify an expert to testify, his report must explain how that “experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts when the expert is relying solely or primarily on experience.” *Vera v. State Auto Ins. Co.*, 2023 WL 4060196, at \*3 (E.D. Tex. May 12, 2023); *see also Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997) (explaining that expert relying on “practical experience” cannot “escape screening by the district court simply by stating that their conclusions were not reached by any particular method or technique”).

Dr. Chandler has done no such thing. Contravening Rule 702’s gatekeeping standards, he utterly fails to explain how his work experience leads to the conclusions reached, or how he connected his prior experience to the facts of this case. *See Gen. Elec.*, 522 U.S. at 146. Dr. Chandler did not, for example, review transaction-level data to determine and explain whether particular transactions meet his criteria for transparency and fairness. Ex. 28 (Chandler Depo. Tr.)

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81:15-24. And whatever data Dr. Chandler does have about publishers and advertisers from his professional life, he has not disclosed it. *Id.* at 167:12-23 (testifying that his professional database is subject to NDAs). In any event, had he disclosed his database, it likely would have shed no light on the basis for his opinions: Dr. Chandler’s database does not cover the topics on which he opines. *Id.* at 168:2-4 (“If we’re specifically talking about those [transparency, fairness, and conflicts of interest] topics, I do not have that information stored in the database.”).

To make matters worse, Dr. Chandler’s purported expertise concerning these specific issues is dubious. Although Dr. Chandler claims to be “an expert on what is fair” and an “expert in ethics” in digital marketing, he has neither taught, nor studied, nor published academically in those fields (assuming the former exists). *See id.* at 14:8-12 (claiming to be a fairness expert); *id.* at 12:15-19 (claiming to be an ethics expert); *id.* at 12:20-13:20 (admitting that he has never taken an ethics course, taught an ethics course, or published any academic papers that concern ethics); *id.* at 259:6-9 (admitting that he does not “have any peer-reviewed research on what is fair or what is transparent”). As a result, there is no basis to conclude that his experience is a “sufficient basis” for the opinions offered. *Vera*, 2023 WL 4060196, at \*3.

Third, Dr. Chandler offers ways of testing the veracity of his opinions that are not viable—and that he did not perform. In particular, Dr. Chandler asserts that industry participants would recognize and agree with his definitions of fairness and transparency as well as his conclusions. But he cannot corroborate that statement because he took no steps to do so. Dr. Chandler did not commission a survey or other device to test his beliefs against those of industry participants, nor did he consider any existing data sets about industry expectations or authoritative industry literature to validate his beliefs. In fact, Dr. Chandler is not even “aware of an industry participant who is using [his] criteria [for a fair and transparent auction] exactly as it is” written in his expert

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report. Ex. 28 (Chandler Depo. Tr.) 268:2-6. Dr. Chandler is a data scientist; he knows that personal beliefs and anecdotes are not data. But for this assignment, Dr. Chandler applied no methodology to link his experience to his analysis and conclusions, instead relying on sheer *ipse dixit* that if other people in the industry were asked about his opinions, surely they would agree. Chandler did not undertake any work to show that assertion to be true, and this Court cannot allow the jury to hear testimony that amounts to nothing more than “trust me, I’m an expert.” *See, e.g., Hathaway*, 507 F.3d at 318 (“[W]ithout more than credentials and a subjective opinion, an expert’s testimony that ‘it is so’ is not admissible.”).

Dr. Chandler’s failure to utilize any methodology in his report is likely why he *made one up* during his deposition. There, Dr. Chandler offered a completely new methodology, mentioned nowhere in the 187 pages of his opening and rebuttal reports: He claimed for the first time to have utilized “a standard data science methodology that goes by the name CRISP-DM,” short for Cross-Industry Standard Process for Data Mining. Ex. 28 (Chandler Depo. 58:23-59:6) (agreeing his report does not mention CRISP-DM).<sup>38</sup> This purported methodology is undisclosed, untimely, and should be disregarded. *See Vera*, 2023 WL 4060196, at \*3 (explaining that a “deficient” report “cannot be bolstered after-the-fact” because “the expert report *itself* must demonstrate that the proffered opinions are admissible under Rule 702”) (emphasis original).

Regardless, even if it is considered, the methodology does not make Dr. Chandler’s opinions any more reliable. By Dr. Chandler’s own admissions, CRISP-DM has no relationship to his assignment: It is simply a process for collecting, cleaning, synthesizing, and modeling data sets—that is, for performing data analysis. *See* Ex. 28 (Chandler Depo. Tr.) 60:19-61:7. But his

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<sup>38</sup> *See also* Ex. 30, Pete Chapman et al., SPSS, *CRISP-DM 1.0: Step-by-Step Data Mining Guide* (2000),



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report does not perform such data analysis, *see id.* at 73:20-74:1—notwithstanding his attempt to categorize as his “data” the “materials in this case, the deposition testimony, peer-reviewed literature, [and] information from the popular press and trade press,” *id.* at 61:8-24. Rather, it addresses his beliefs about whether Google is transparent and fair. How CRISP-DM could help Dr. Chandler reach these *qualitative* opinions Dr. Chandler never explains. *See id.* at 58:23-62:2. It is clear, though, that CRISP-DM is such a poor fit for Dr. Chandler’s assignment that he is unaware of whether anyone has ever applied that methodology to questions of “fairness” or “transparency,” as he claims to have done. *Id.* at 60:3-18.

Chandler’s assessment of whether Google is “fair” or “transparent” is a personal one. He does not have a methodology, much less a “scientifically reliable” one. *Burleson v. Tex. Dep’t of Criminal Justice*, 393 F.3d 577, 583–84 (5th Cir. 2004) (quoting *Daubert*, 509 U.S. at 592–93). On this basis alone, his opinions must be excluded.

**2. Dr. Chandler’s Fairness and Transparency Opinions Are Irrelevant To The States’ Claims.**

Dr. Chandler’s fairness and transparency opinions suffer from a second failing: They are irrelevant to the applicable legal standards. To state the obvious, insufficient “transparency” is not a basis for liability under any law, and certainly not under Dr. Chandler’s personal definition. Whether a company is “transparent”—which Dr. Chandler never defines, but which appears to include being “straightforward and open,” with “clear communication,” Ex. 29 (Chandler Rpt.) ¶ 18(5) n.9—has no bearing on whether that company violated a DTPA or antitrust law. Dr. Chandler’s opinions are thus irrelevant; they violate the commandment that expert opinions be “sufficiently tied to the facts of the case that [they] will aid the jury in resolving a factual dispute.” *Daubert*, 509 U.S. at 591 (quoting *United States v. Downing*, 753 F.2d 1224, 1242 (3d Cir. 1985)). Google’s practices are not to be compared to Dr. Chandler’s personal ideal, but to the strictures of

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antitrust law and the State DTPAs. A communication may be less “clear” or “straightforward” than Dr. Chandler would prefer without being in any way deceptive or anticompetitive. Likewise, by insisting that companies must disclose “comprehensive data” and “detailed insights” about their inner workings, Ex. 29 (Chandler Rpt.) ¶ 247, Dr. Chandler sets the bar far higher than any applicable law does, *see id.* (opining that “[a]ny restriction, unequal access, or misrepresentation of this essential information” would be improper). Testimony about “transparency,” and Dr. Chandler’s personal preference for more of it, is therefore irrelevant to the issues in the case and will serve no purpose beyond confusing the jury.

The same is true of Dr. Chandler’s opinions about “overall fairness,” which he defines only by way of examples that are intertwined with his conclusions. *See, e.g.*, Ex. 29 (Chandler Rpt.) ¶ 18(5) n.9 (discussing “equal access to information and a bidding process free from bias or preferential treatment”); *id.* ¶ 23(9) (opining that conflicts of interest harm fairness); *id.* ¶ 23(17) (listing allegedly unfair practices such as “denials of equal and fair access to inventory, demand, and functionality”). Under several of the State deceptive trade practices laws, however, “unfair” practices are not actionable absent deception.<sup>39</sup> For those states, Dr. Chandler’s fairness opinions are plainly irrelevant. And for the remaining States, where unfairness alone can be a ground for liability, those States use their own standards and definitions for what is unfair—not Dr. Chandler’s bespoke ones. *Compare, e.g.*, Ex. 29 (Chandler Rpt.) ¶ 18(5) n.9 (“I believe a fair and

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<sup>39</sup> *See* Ark. Code Ann. § 4-88-107(a)(10) (any “unconscionable, false, or deceptive act or practice”); Idaho Code § 48-603(17) (“any act or practice which is ... misleading, false, or deceptive”); Nev. Rev. Stat. § 598.0963(3) (“deceptive trade practice”); N.D. Cent. Code § 51-15-02 (“act, use, or employment ... of any deceptive act or practice, fraud, false pretense, false promise, or misrepresentation”); S.D. Codified Laws § 37-24-6(1) (“any deceptive act or practice, fraud, false pretense, false promises, or misrepresentation or to conceal, suppress, or omit any material fact”); Tex. Bus & Com. Code Ann. § 17.46(a) (“false, misleading, or deceptive acts or practices”); Utah Code Ann. § 13-11-4(1) (“deceptive act or practice”).

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transparent online auction would be built on the principles of equal access to information and a bidding process free from bias or preferential treatment.”), with *Rohrer v. Knudson*, 203 P.3d 759, 764 (Mont. 2009) (“[A]n unfair act or practice is one which offends established public policy and which is either immoral, unethical, oppressive, unscrupulous or substantially injurious to consumers.”). That Dr. Chandler did not ensure his personal standards conformed to the applicable standards was a matter of choice: Plaintiffs did not provide the DTPA standards to him, so he “cannot tell you anything directly about” them. Ex. 28 (Chandler Depo. Tr.) 154:2-13; *see also id.* at 11:21-12:11 (testifying that he did not rely on assumptions provided by anyone and received no instructions beyond his assignment). Dr. Chandler’s opinions therefore were not and could not be tethered to any applicable legal standard.

**B. Dr. Chandler’s Conflict-Of-Interest Opinions Are Also Unreliable and Irrelevant.**

In addition to his conclusions about “fairness” and “transparency,” Dr. Chandler offers opinions regarding “conflicts of interest.” These suffer from the same methodological failings: Dr. Chandler does not bridge the analytical gap between his personal experience and his expert conclusions, and his opinions are irrelevant to any issue in this case. Federal Rule of Evidence 702 prohibits these opinions. *See Gen. Elec. Co.*, 522 U.S. at 146.

Like “transparency,” the existence of a “conflict of interest” is not a basis for liability under any State DTPA. The statutes concern deception; whether one deceives because of a “conflict of interest” has no legal significance. What is more, Dr. Chandler acknowledges that Google’s alleged conflict of interest cannot have been deceptive because, in his words, “the digital advertising and ad tech industries generally *recognize the existence* of Google’s multiple conflicts of interest.” Ex. 29 (Chandler Rpt.) ¶ 23(10). Neither is the existence of a “conflict of interest” relevant under antitrust law, for which neither intent (other than monopolistic intent) nor motive is relevant. *See Solomon v. Houston Corrugated Box Co., Inc.*, 526 F.2d 389, 395 (5th Cir. 1976)

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(“[T]he intent, motive, or state of mind of the defendants are irrelevant”; what matters is the actual “existence” of monopolistic conduct.).

Expert testimony that conflicts of interest “detrimentally affect ... transparency and overall fairness,” “undermine the integrity of the market,” or otherwise affect the “ad tech ecosystem” do not demonstrate that Google behaved in a deceptive or anticompetitive manner. Ex. 29 (Chandler Rpt.) ¶¶ 18(5), 246, 375. Again, such testimony will only confuse the jury and distract from the difficult task of analyzing varied legal standards that *are* applicable to the laws of the 17 Plaintiff States.

**C. Dr. Chandler’s Recitation and Critique Of Google’s Strategic Acquisitions Are Irrelevant And Unduly Prejudicial.**

Dr. Chandler offers an overarching opinion that Google’s acquisitions harmed competition and were the means by which Google obtained “dominant” market positions. Ex. 29 (Chandler Rpt.) ¶¶ 198-246. But Plaintiffs do not allege that any acquisition amounted to an anticompetitive act, so these opinions are not relevant to any claim. *See, e.g.*, FAC ¶ 600 (listing alleged anticompetitive conduct). Moreover, roughly 95% of the acquisitions Dr. Chandler identifies have nothing to do with the “ad tech landscape.” Ex. 29 (Chandler Rpt.) ¶ 200 (“From 2003-2023, Google acquired 255 companies, at least fourteen of which are in the ad tech landscape.”). The acquisitions that do relate to advertising cover a vast range of products and services that Dr. Chandler would not consider substitutable—*i.e.*, that are not part of the same market under his definition. *See* Section V(D), *infra*. For example, Dr. Chandler reports that Google acquired a company focused on “interactive video technology,” a “mobile gaming startup,” and an “influencer marketing platform that facilitated collaborations between brands and digital creators” on social media. Ex. 29 (Chandler Rpt.) ¶¶ 220, 227, 228. This evidence does not support Dr.

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Chandler’s conclusion that Google obtained a “dominant” market position by acquiring all of the competition.

These opinions not only fail to serve any legitimate purpose, but also are offered for several improper reasons. First, as Plaintiffs’ counsel revealed during a recent status conference, the States intend to use Google’s acquisitions to inject evidence of Google’s wealth that is inadmissible in the liability phase. Ex. 11 (11/6/2024 Hrg. Tr.) 27:2-5. Dr. Chandler’s recitation of Google’s acquisition spending over a two-decade period would be highly prejudicial and misleading—especially in isolation, without parallel information about Amazon, Microsoft, Facebook, or other competitors as a point of comparison.

Second, Dr. Chandler’s opinions rely on prejudicial and otherwise inadmissible hearsay. For example, he quotes an article from adnet.com, arguing that “it doesn’t take a rocket scientist to figure out that Google is positioning itself in the same center of the ad universe” and that AdMob agreed to an acquisition because the “alternative” was “being run over by Google.” Ex. 29 (Chandler Rpt.) ¶ 216. Similarly, Dr. Chandler relays an interview with the CEO of a rival company, who complained that Google’s acquisition of DoubleClick “made it extremely difficult for anyone else to compete,” that Google “destroyed all competition,” and that “within a couple years of that acquisition, there were no viable competitors in the publisher ad server space.” *Id.* ¶¶ 213-14. Dr. Chandler also cites an article from 16 years after the DoubleClick acquisition, which reported that FTC Commissioner Pamela Harbor “objected” to the acquisition and “warned” that it “would lessen competition and consumer protections related to privacy.” *Id.* ¶ 211. As his report summarizes, “the sense in the industry was that ad tech companies face two choices: be bought by Google or destroyed by it.” *Id.* ¶ 217; *see also, e.g., id.* ¶¶ 208, 215, 219, 221, 222.

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These unsworn lay opinions are, on their own, plainly inadmissible. Although Rule 703 allows experts to rely on inadmissible evidence in some circumstances, it does not authorize experts to serve as a mouthpiece for prejudicial hearsay commentary that would otherwise be excluded. To the contrary, “the proponent of the opinion may disclose them to the jury only if their probative value in helping the jury evaluate the opinion substantially outweighs their prejudicial effect.” Fed. R. Evid. 703. Because Google’s acquisitions are not relevant to any claim, these statements have *no* probative value—much less sufficient value to outweigh their prejudicial effect.

Third, Plaintiffs seek to confuse the jury by citing *lawful* conduct as evidence of *unlawful* monopolistic intent. This is impermissible as a matter of law. *See Arminak & Assocs., Inc. v. Saint-Gobain Calmar, Inc.*, 789 F. Supp. 2d 1201, 1211-12 (C.D. Cal. 2011) (“It would be repugnant to the antitrust laws to let Arminak present evidence of these five lawful categories of conduct to the jury,” including “making a strategic acquisition of a former competitor’s assets.”). Plaintiffs must be held to their pleadings and cannot use an expert to conjure a vague sense that Google is “bad,” unrelated to any claim, or “powerful,” untethered to power in a relevant market.

**D. Dr. Chandler’s Substitutability Opinions Are Unreliable and Irrelevant.**

Dr. Chandler has no antitrust experience and no specialized knowledge in that field. *See, e.g.*, Ex. 28 (Chandler Depo. Tr.) 40:4-41:25, 116:12-117:24. Despite this lack of expertise, he opines that open web display advertising is not substitutable for other forms of advertising. This opinion must be excluded for two reasons.

First, Dr. Chandler applies an incorrect standard. This is hardly surprising, considering his admission that he “do[es] not know the antitrust definition of ‘substitutability.’” Ex. 28 (Chandler Depo. Tr.) 116:12-117:6. He had never heard of the SSNIP test, *id.* at 117:21-24, and he did no analysis on cross-elasticity of demand, *id.* at 117:25-118:14. Instead, Dr. Chandler applies a

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definition of substitutability that he invented—which will only confuse, and will not assist, the trier of fact in evaluating the relevant market. Dr. Chandler defines substitutability to mean “something could be entirely replaced by something else with essentially no change in function.” *Id.* at 113:17-22; *see also id.* at 115:8-18 (“[C]ould you entirely remove one marketing channel, replace it with another with no changes in function[?]”). This definition came purely from Dr. Chandler’s “understanding,” without reference to any reliable source. *Id.* at 113:17-22. Dr. Chandler’s opinion that open web display advertising is not “perfectly interchangeable” with other forms of advertising is irrelevant and misleading, so it must be excluded. Ex. 29 (Chandler Rpt.) ¶¶ 83, 92; *see also Apani Sw., Inc. v. Coca-Cola Enters., Inc.*, 300 F.3d 620, 626 (5th Cir. 2002) (requiring consideration of “interchang[ability] in use” and the degree of cross-elasticity of demand, not perfect interchangeability).

Second, Dr. Chandler opines that price differences between products mean they are not substitutable, while failing to control for quality. He claims the “discrepancy” in nominal prices paid for different types of advertising indicates that “these channels, and the types of creative shown on them, are not viewed as equivalent by advertisers.” Ex. 29 (Chandler Rpt.) ¶¶ 90- 91. This opinion is wrong as a matter of basic economics and law. What matters is quality-adjusted pricing, not nominal pricing, and whether increased quality-adjusted pricing on one product causes switches to another. The Supreme Court established this basic fact more than fifty years ago, when it explained that, although “Cellophane costs two or three times as much” as other forms of “flexible wrapping,” those products compete within the same product market because a market is

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composed of reasonably interchangeable products considering “price, use and qualities.” *United States v. E.I. Du Pont de Nemours & Co.*, 351 U.S. 377, 401, 404 (1956).<sup>40</sup>

Even Dr. Chandler acknowledges that advertisers “make tradeoffs” among factors including price, audience reach, engagement, and effectiveness to “to find pieces of marketing that provide a positive return on investment (ROI) or return on ad spend (ROAS).” Ex. 29 (Chandler Rpt.) ¶ 91; *see also id.* ¶ 88 (opining that certain forms of digital advertising “demand[] a premium due to potentially higher engagement and effectiveness”). If advertisers can decide between multiple products that serve the same purpose—some that are more expensive and more effective, others that are less expensive but also less effective—those products are substitutable.

**E. Dr. Chandler’s State of Mind Opinions Must Be Excluded.**

A company’s state of mind is not an appropriate topic for expert testimony. *See* Section I(F), *supra*. Yet Dr. Chandler purports to offer opinions as to the state of mind of Google and other online auction participants. As to Google, Dr. Chandler offers opinions regarding Google’s intent, motive, knowledge, perceptions and beliefs on topics including strategic acquisitions,<sup>41</sup> header bidding,<sup>42</sup> reserve price optimization,<sup>43</sup> Bernanke,<sup>44</sup> and experimentation practices.<sup>45</sup>

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<sup>40</sup> *See also, e.g., Harrison Aire, Inc. v. Aerostar Int’l, Inc.*, 423 F.3d 374, 381 (3d Cir. 2005) (“Because it is undisputed that balloon fabric ... is differentiated by composition and quality, Aerostar’s comparatively high price does not, by itself, support a reasonable inference of monopoly power.”); *In re HIV Antitrust Litig.*, 2023 WL 3089820, at \*7 (N.D. Cal. Mar. 7, 2023) (“[O]ne product may have the same price as another product. However, if the first product is of better quality than the second, then the first product is actually cheaper than the second.”).

<sup>41</sup> Ex. 19 (Chandler Rpt.) ¶ 23(7) (“When faced with competitive threats, Google has strategically acquired competitors to maintain and enhance its market position.”).

<sup>42</sup> *Id.* ¶ 126 (“Within Google, header bidding was seen as a threat to Google’s exchange hegemony.”).

<sup>43</sup> *Id.* ¶ 348 (“Google set artificially high reserves prices to optimize AdX revenue, often higher than the publisher’s floor price.”).

<sup>44</sup> *Id.* ¶ 349 (“Google manipulated auctions to increase how often the Google Display Network (GDN) won,” with “multipliers [] set up to maximize Google’s revenue.”).

<sup>45</sup> *Id.* ¶ 380 (opining that Google “launches” a design change “if the experiment successfully increases Google’s revenue”), *id.* ¶ 391 (“Google took active steps to conceal its experiments



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Additionally, Dr. Chandler offers opinions about the “expectations” of advertisers and publishers for “transparency” and “even-handedness.”<sup>46</sup> Consistent with the law of the Fifth Circuit and the Eastern District of Texas, Dr. Chandler must be barred from offering any opinions regarding the state of mind of Google or any other person or company. *E.g., Greger v. C.R. Bard, Inc.*, 2021 WL 3855474, at \*9 (E.D. Tex. Aug. 30, 2021) (citation omitted) (“Inferences about the intent or motive of parties or others lie outside the bounds of expert testimony.”).

**VI. Dr. Shafiq’s Improper Opinions Should Be Excluded in Their Entirety.**

Dr. Zubair Shafiq’s opinions should be excluded in their entirety. His Report (1) constitutes improper affirmative evidence; (2) is unreliable and unhelpful to a trier of fact; and (3) fails to disclose all materials relied upon in violation of Federal Rule of Civil Procedure 26(a)(2)(B). Dr. Shafiq’s Report provides three main expert opinions: (i) that privacy is not a legitimate reason for Google’s Bid Data Transfer (“BDT”) file redactions or promotion of Open Bidding over Header Bidding; (ii) “Google has substantial and unique access to data” through its first-party websites and products that provides it with a data advantage over competitors; and (iii) that Google’s privacy controls do not empower customers to customize ads preferences, and Google sells user data without consumer knowledge. *See* Ex. 32 (Shafiq Rpt.) ¶ 16.

Dr. Shafiq’s report should be excluded for several reasons. *First*, Dr. Shafiq’s “rebuttal” report is clearly an improper affirmative report. *Second*, none of his opinions meet the standard for

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because it knew that they were duplicitous in messaging to publishers and advertisers.”), *id.* ¶ 395 (“Google understood the risks associated with its experiments.”).

<sup>46</sup> *Id.* ¶ 256 (“[P]ublishers and advertisers alike expect transparency when they transact on a programmatic auction.”); *id.* ¶ 347 (“Advertisers and publishers expect transparent and fair auctions, and undisclosed rule changes violate these expectations.”); *id.* ¶ 360 (“[U]ndisclosed Google rule changes were contrary to the expectations of the auction participants.”); *id.* ¶ 364 (“[D]enying equal access to information or functionality ... violated participant expectations,” “programs involve[ing] restricting information” were “contrary to participant expectations,” and “discriminat[ion] among participants[] violat[es] expectations of fairness and impartiality”); *id.* ¶ 374 (DRS “violated participant expectations”).

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admissible expert testimony or proper rebuttal evidence. Moreover, Dr. Shafiq wholly fails to apply an appropriate methodology for his scientific opinions. *Finally*, likely in an attempt to cover for the fact that he failed to use a reliable methodology, Dr. Shafiq attempted to bolster the lack of rigor around his opinions at his deposition, claiming for the first time that he relied on other materials. However, Dr. Shafiq inappropriately did not disclose those materials.

**A. Most Of Dr. Shafiq’s Opinions Are Affirmative Opinions.<sup>47</sup>**

On September 9, 2024, Plaintiffs designated Dr. Shafiq, a computer scientist and Associate Professor of Computer Science at the University of California, Davis, as a rebuttal expert witness. *See* Ex. 33 (Plaintiff States’ Designation of Rebuttal Expert Witnesses); Ex. 32 (Shafiq Rpt.) ¶ 1. Although Plaintiffs call this a “rebuttal” report, it is plainly an affirmative report. Rule 26 allows rebuttal evidence “intended *solely* to contradict or rebut evidence on the same subject matter.” Fed. R. Civ. P. 26(a)(2)(D)(ii). That is, a rebuttal report “explains, repels, counteracts, or disproves evidence of the adverse party’s initial report.” *CEATS, Inc. v. TicketNetwork, Inc.*, 2018 WL 453732, at \*3 (E.D. Tex. Jan. 17, 2018).<sup>48</sup>

Tellingly, Dr. Shafiq was retained by Plaintiffs on March 27, 2024—*months* before any opening or Google expert reports were due—to provide “opinions and testimony regarding whether privacy is a legitimate justification for Google’s conduct(s) at issue.” Ex. 32 (Shafiq Rpt.); Ex. 31 (Shafiq Depo. Tr.) 129:2-23. Not only was Dr. Shafiq engaged and developing his opinions before Google proffered any expert opinions, but he also was engaged and developing his opinions

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<sup>47</sup> Dr. Shafiq purports to rebut the expert reports of Google’s experts Drs. Hoffman, Milgrom, Baye and Ghose; however, on October 11, 2024, Google withdrew the report of Dr. Ghose.

<sup>48</sup> *See also YETI Coolers*, 2017 WL 394511, at \*2 (expert report was “plainly not a rebuttal report” because “report [did] not attempt to rebut any of YETI’s experts,” and “[did] not attempt to rebut expert opinions offered by YETI”); *McReynolds v. Matthews*, 2017 WL 5573194, at \*4 (S.D. Miss. Nov. 20, 2017) (rejecting witness as an improper expert rebuttal witness and holding that a “rebuttal expert report is not the proper place for presenting new legal arguments”).

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before Plaintiffs offered theirs. This is not the first time Dr. Shafiq has attempted to improperly advance new arguments and evidence against Google couched as a “rebuttal” opinion. *Doe I v. Google LLC*, 2023 WL 6882766, at \*1 (N.D. Cal. Oct. 18, 2023) (excluding Dr. Shafiq’s rebuttal declaration for “contain[ing] almost 600 pages of new evidence” and noting that rebuttal evidence “may not be used ‘to advance new arguments or new evidence’”). Plaintiffs could and should have introduced three of his opinions affirmatively, and the improper rebuttal opinions should now be stricken.

First, Dr. Shafiq improperly introduces a new legal argument that Google deceptively manipulates privacy controls to dupe users into consenting to ads personalization and that Google may sell their information. *See* Ex. 32 (Shafiq Rpt.) ¶¶ 61-74. To support this new argument, Dr. Shafiq opines that Google’s privacy controls are riddled with “dark patterns”—a term absent from every other expert report and pleading submitted in this action. *Id.* ¶¶ 16(c), 47-58. Dr. Shafiq further opines that Google uses deceptive practices to sustain its data advantage over competitors, but again, no other experts reference deceiving users regarding data collection or ads personalization, let alone Dr. Hoffman, whose opinion Dr. Shafiq purports to rebut. *Id.* Second, Dr. Shafiq opines for the first time that Google “conducts billions of auctions selling user data every day.” *Id.* ¶ 77. Notably, Dr. Hoffman makes no assertion on this issue, only quoting *Plaintiffs’* own allegations. Ex. 34 (Hoffman Rpt.) ¶ 19. These are a clear attempt to introduce new legal arguments with opinion evidence that improperly “covers a new and different ground,” and thus, should be excluded. *Mooney v. Aramco Svs. Co.*, 54 F.3d 1207, 1222 (5th Cir. 1995) (rejecting rebuttal expert testimony that did not directly respond to the opposing party’s expert). Third, Dr. Shafiq’s opinion that “privacy was not a legitimate justification” for Google’s decision-making does not rebut any experts, but merely amplifies Plaintiffs’ expert Dr. Gans’ opinion on

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the same topic that “privacy [w]as a pretext.” Ex. 32 (Shafiq Rpt.) ¶¶ 29, 17 & n.12; Ex. 31 (Shafiq Depo. Tr.) 147:15-149:2. These opinions are a clear attempt to introduce new legal arguments with opinion evidence that improperly “covers a new and different ground,” and thus, should be excluded. *Mooney v. Aramco Servs. Co.*, 54 F.3d 1207, 1222 (5th Cir. 1995), *overruled on other grounds by Desert Palace, Inc. v. Costa*, 539 U.S. 90 (2003).<sup>49</sup>

**B. Dr. Shafiq’s Opinions Do Not Meet Rule 702’s Requirements.**

Dr. Shafiq’s opinions also fail to meet the standard for admissible expert testimony. As part of the Court’s gatekeeping function under *Daubert*, the Court must first determine whether expert testimony is reliable, which Plaintiffs must establish by a preponderance of evidence. *See Bourjaily*, 483 U.S. at 175-77; *see also* Section I(D), *supra*. Plaintiffs cannot meet this standard because Dr. Shafiq’s Report fails to establish that any of his opinions are reliable and thus, they should be excluded.

**1. Dr. Shafiq Does Not Use His Specific Technical and Specialized Knowledge In Any Way That Could Be Helpful To A Trier Of Fact Or Jury.**

Dr. Shafiq is a computer scientist with extensive experience as an expert witness, *see* Ex. 32 (Shafiq Rpt.) Appendix C, yet he fails to apply his specific technical expertise in a helpful way for the trier of fact, so his opinions must be excluded. *See, e.g., Taxotere*, 26 F.4th at 268; *Moore*, 151 F.3d at 279 (excluding unreliable expert report for being speculative and failing to cite scientific support). He also opines on issues outside of his expertise, such as consumer preferences, and impermissibly opines on Google’s intent. *See* Ex. 32 (Shafiq Rpt.) ¶¶ 29, 81-84. Because these topics do not relate to Dr. Shafiq’s specialized knowledge as a computer scientist and are outside

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<sup>49</sup> Dr. Shafiq’s improper affirmative opinions have caused Google prejudice by attempting to inject into the case new evidence to which Google’s experts were not given a chance to respond. *See, e.g., United States ex rel. Montcrieff v. Peripheral Vascular Assocs., P.A.*, 507 F. Supp. 3d 734, 747-48 (W.D. Tex. 2020) (concluding that the court must also decide whether the improper rebuttal report is substantially justified or harmless).

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the scope of permissible opinion testimony, they fail to “more likely than not” “help the trier of fact.” Fed. R. Evid. 702(a).

Specifically, Dr. Shafiq purports to opine as to how Google’s advertising technologies work, but wholly fails to use his specialized knowledge to: (1) undertake any independent analysis of Google’s source code;<sup>50</sup> (2) review any of Google’s relevant algorithms;<sup>51</sup> (3) speak with Plaintiffs’ expert Dr. Hochstetler who *did review* Google’s source code;<sup>52</sup> or even (4) read all of Dr. Hochstetler’s report, on which he purports to rely.<sup>53</sup> As explained *infra*, Dr. Shafiq’s failure to take any of these steps and use his technical expertise to formulate his opinions renders his Report unreliable. *See, e.g., Moore*, 151 F.3d at 277-78 (finding expert testimony unreliable where expert failed to explain why his background and experience advanced his conclusions).

Moreover, Dr. Shafiq disregards that opining on Google’s subjective intent is improper, boldly claiming that “privacy was not a legitimate justification for the redactions of the BDT files.” Ex. 32 (Shafiq Rpt.) ¶ 29. As to Google’s privacy justifications, Dr. Shafiq testified that he opined

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<sup>50</sup> Ex. 31 (Shafiq Depo. Tr.) 51:24-52:1 (“Q. Did you ask to look at source code in this action, sir? A. No.”); *id.* 58:12-60:22 (“Q. You describe peer-reviewed research, but you, yourself, did not look at AdMob source code in connection with this engagement; correct? ... A. I remember reading the paper, and that paper included an excerpt of source code related to AdMob ... Q. So you don’t know if the code reflected in the paper that you cited in your report is correct or not as of today? ... A. I cannot reliably answer your question .... Q. And it may be incorrect? A. I will have to look at the code.”).

<sup>51</sup> *Id.* 55:25-57:12 (“Q. And you didn’t specifically look at the RTB algorithms or source code; correct? ... You didn’t look at them yourself, you relied on other people’s research ... and documents that describe them? ... A. I, for example, relied on Google’s own documentation of real-time bidding that describes how real-time bidding works. Q. Right. You didn’t actually look at the underlying data that would support or refute that documentation? ... A. ... I did not look at RTB source code because I did not have access to it. Q. Did you ask for it? A. No.”).

<sup>52</sup> *Id.* 125:20-25 (“A. I believe I cited Professor Hochstetler’s report. Q. Did you ever talk to him? A. No. Q. Did you ever talk to any of the experts? A. No.”).

<sup>53</sup> *Id.* 199:5-14 (“A. I have not read every single expert report in this case. Q. You relied on the expert report of Jacob Hochstetler; correct? A. That is one of the expert reports that I’ve relied on for part of my opinion, yes. Q. Did you read the whole report? A. I believe I only read the part that was relevant to the opinion that I was offering in my report.”).

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on “the validity of [ ] statements” made by Google employees expressing privacy concerns related to the joinability of BDT files, Ex. 31 (Shafiq Depo. Tr.) 133:5-9, and as to “Google’s true intention for the BDT file redaction,” *id.* 153:15-23,—yet, an expert is clearly not permitted to opine on the mental impressions of Google employees or its subjective intent. *See Greger*, 2021 WL 3855474, at \*9 (excluding expert testimony concerning a corporation’s “subjective intent, motives, or internal decision-making”).

Dr. Shafiq also opines that “Google’s privacy disclosure stating that it does not sell user data is misleading.” Ex. 32 (Shafiq Rpt.) Section V.B. But Dr. Shafiq does not apply his computer science background to opine on this topic—nor could he because he is not an expert in consumer behavior. And even if he were so qualified, Dr. Shafiq admits he did not undertake any work to provide a basis for such an opinion—opining that “Google does not offer any control to users to opt-out of the sale of their data in RTB,” *id.* ¶ 16(c), but admitting he did not investigate whether such a control exists (*which it does*).<sup>54</sup> Because these opinions are outside of Dr. Shafiq’s computer science expertise, the Court should exclude them.

**2. Dr. Shafiq Does Not Use Any Reliable Methodologies, Nor Is His Opinion a Reliable Application Of Any Methodology To The Facts At Issue.**

Even where Dr. Shafiq was qualified to offer expert opinions using his scientific knowledge, he failed to use a reliable methodology. In assessing an expert’s theory or technique’s reliability, courts consider whether the expert’s methodology: (1) can be tested; (2) is subject to peer review and publication; (3) has a known or potential error rate; and (4) is generally accepted

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<sup>54</sup> Ex. 31 (Shafiq Depo. Tr.) 214:7-12 (“Q. Right. You agree that users can turn off anything they don’t want used to personalize their ads? ... A. This is not something that I’ve investigated as part of my assignment in this case.”).

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within the relevant scientific community. *See Pipitone*, 288 F.3d at 244.<sup>55</sup> Dr. Shafiq’s Report fails to meet any of these factors.

**a. Dr. Shafiq’s Methodology Cannot Be Tested as He Failed To Use One.**

Dr. Shafiq is well aware of the importance of applied methodologies. Indeed, he serves as the editor-in-chief of the Proceedings on Privacy Enhancing Technologies’ (PoPET), the “flagship” peer-reviewed computer science journal on privacy. Ex. 31 (Shafiq Depo. Tr.) 88:13-89:3, 94:15-95:3. He authored PoPET’s recent call for papers, which *requires* papers submitted to be based on “practical or applied work” such as “real-world measurements, evaluations on real-world data,” and “system design and evaluation.” *Id.* 94:4-97:4; Ex. 35 (Shafiq Depo. Tr. Ex. 8). But he does not apply his own journal’s standards to his opinions. In opining on how Google’s complex advertising technology works—such as his opinions that: Google sells user data without consumer knowledge; there is no legitimate privacy justification for Google’s BDT file changes; header bidding does not present any unique privacy concerns; and Google uses holistic user profiles in advertising—he does not engage in practical work or rely on real-world measurements and data. Rather, he simply reviewed other papers and internet websites, claiming this so-called technique “follows the standard [research] methodology.” *Id.* 295:4-13; 296:4-8. Not so. His opinions are nothing more than the equivalent of hearsay, relying on others’ scientific research and extrapolating from them without proper basis.

Having served as an expert 16 times within the last four years,<sup>56</sup> Dr. Shafiq is keenly aware that to offer admissible opinions regarding how a technology works, he must do more than merely

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<sup>55</sup> *See also Moore*, 151 F.3d at 279 n.10 (“Under *Daubert*, ‘any step that renders the analysis unreliable ... renders the expert’s testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology.’”).

<sup>56</sup> Ex. 32 (Shafiq Rpt.) Appendix C; Ex. 31 (Shafiq Depo. Tr.) 256:2-5.



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cite a handful of research papers and websites. *See, e.g.*, Ex. 36 (Shafiq Decl. in *Bernadine Griffith v. TikTok*, No. 5:23-cv-00964 (C.D. Cal. June 21, 2024)) ¶ 12 (conducting testing and developing “a methodology to test for any variability in TikTok Pixel’s data collection across different websites” and browsers); Ex. 37 (Umar Iqbal, Zubair Shafiq et al., *Tracking, Profiling, and Ad Targeting in the Alexa Echo Smart Speaker Ecosystem*, ACM Internet Measurement Conf. (2023)) at 1 (building and implementing a framework to “measure data collection, usage, and sharing by the smart speaker platforms”). Even worse, Dr. Shafiq does not substantively engage or analyze the peer-reviewed research he relies on; only half (four of eight) even directly address display advertising. Ex. 32 (Shafiq Rpt.) Appendix A.

Nor did Dr. Shafiq take other important steps to test his conclusions, such as: requesting access to any of Google’s advertising systems to perform any independent analysis;<sup>57</sup> collecting or measuring his own data;<sup>58</sup> attempting to simulate the purchase or selling of an ad;<sup>59</sup> or analyzing the non-peer-reviewed data he cites, despite claiming such testing is “a basic thing in our scholarship.” Ex. 31 (Shafiq Depo. Tr.) 197:17. His lack of implementing any accredited methodology is a lethal blow to the reliability and ultimate admissibility of his opinions. *See, e.g.*, *Kumho Tire*, 526 U.S. at 157 (opinion evidence inadmissible when connected to existing data only

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<sup>57</sup> *Id.* 54:5-12 (“Q. Did you request access to any of the online advertising products at issue in this case ... ? ... A. As part of my work in this case, that I describe in my report, I did not ask for access to Google’s advertising systems.”).

<sup>58</sup> *Id.* 79:3-80:3 (“A. Subject to the thing that I explained earlier, where I confirmed peer-reviewed research that I cited in parts of my report, other than that, yes, I did not collect data that I relied upon in the report. Q. And you did not measure any data that you relied upon in your report; correct? ... A.... I did not measure my own data.”).

<sup>59</sup> *Id.* 52:13-53:15 (“Q. Did you try to buy an ad as part of your work or simulate buying an ad? ... A. For the purposes of the assignments that I address in this report, I did not buy an ad on Google. Q. Or sign up as a publisher and try to sell an ad? ... A. For the purposes of the assignment that I address in this report, I did not sign up as a publisher to sell ads.”).



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by expert's *ipse dixit*); *Hathaway*, 507 F.3d at 318 (“[S]ufficient facts and a reliable methodology is in all instances mandatory”).<sup>60</sup>

**b. Dr. Shafiq's Methodology Was Not Subject to Peer Review And Publication.**

Because Dr. Shafiq does not employ an actual methodology, it is incapable of being subjected to peer review and publication. Notably, although he claims to rely on the methodologies of the few peer-reviewed papers he cites, Ex. 31 (Shafiq Depo. Tr.) at 296:4-8, none specifically support any of his opinions. Moreover, while he purportedly conducted additional “testing,” he does not discuss or list this work in his report, nor could he describe it in any detail when questioned at his deposition—ultimately admitting that “*I don't exactly remember how many tests I did or what exactly did I look at.*”<sup>61</sup> Ex. 31 (Shafiq Depo. Tr.) 67:20-68:5. In sum, there is no way to meaningfully peer review his opinions.

Even more baffling is that Dr. Shafiq's own lab and prior research focus on the types of issues he was hired to opine on—yet he failed to use his lab to test data to support his opinions in this case. *See, e.g.*, Ex. 31 (Shafiq Depo. Tr.) 73:6-8 (“[W]e build systems and measurement methods to investigate personal data collection, sharing and usage in the web....”). Dr. Shafiq's opinions do not pass the court's gatekeeping function under *Kumho Tire*.

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<sup>60</sup> *See also Guile*, 422 F.3d at 227 (“[W]e look to the basis of the expert's opinion, and not the bare opinion alone.”); *United States v. 4.620 Acres of Land, more or less, in Hidalgo Cnty.*, 576 F. Supp. 3d 467, 475-76 (S.D. Tex. 2021) (rejecting expert testimony as experts may not rely on unsubstantiated assertions) (hereinafter “*4.620 Acres of Land*”).

<sup>61</sup> *See also id.* 197:6-22 (Q. Have you tried to go in and reproduce the results? A. Yes.... I spot-check them by doing my own testing.... Q. ... So if that's something you relied upon, why haven't you listed that in your report? A.... This is such a basic thing in our scholarship, that if you're looking at data collection from a web browser, you open a website and you see what data collection is happening.... [I]t is not worth mentioning[.]”).

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**c. Dr. Shafiq’s Alleged Methodology Does Not Adhere to The Standards Of His Scientific Community Or The Courts.**

Courts “should consider the known or potential rate of error ... and the existence and maintenance of standards controlling the technique’s operation.” *Daubert*, 509 U.S. at 594. Dr. Shafiq employs no recognized methodology in this case, as discussed *supra* at Sections VI(B)(2)(a)-(b), and his purported methodology is insufficiently developed. Again, this is not a first offense for Dr. Shafiq whose opinions have previously failed to pass muster under Rule 702. *In re Google RTB Consumer Priv. Litig.*, 2024 WL 2242690, at \*10 (N.D. Cal. Apr. 4, 2024) (finding Dr. Shafiq’s rebuttal “insufficiently developed”); *Griffith*, 2024 WL 4308813, at \*3 (finding Dr. Shafiq’s rebuttal report “misleading”). His Report is merely the latest instance of Dr. Shafiq’s failure to adhere to the standards of his scientific community and produce reliable expert testimony acceptable under the Federal Rules and governing case law. *See Daubert*, 509 U.S. at 594-95; *Kumho Tire*, 526 U.S. at 150-53.

**d. Dr. Shafiq’s Supposed Methodology Is Not Generally Accepted Within the Relevant Scientific Community.**

It is clear that Dr. Shafiq did not implement any “practical or applied work,” as is generally accepted in the scientific community. *See Ex. 31* (Shafiq Depo. Tr.) 94:4-97:4; *Wells v. SmithKline Beecham Corp.*, 601 F.3d 375, 380-81 (5th Cir. 2010) (rejecting expert testimony where conclusions were “not generally accepted, ha[d] not been subjected to peer review and publication, and ... not backed by studies meeting requisite scientific standards”).<sup>62</sup> Had he undertaken any of these actions, or documented what additional analyses he claims to have done,<sup>63</sup> then his opinions may have met Rule 702’s requirements. But he did not do any of these things, and accordingly, his opinions on how Google’s technology works must be excluded.

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<sup>62</sup> *See also supra* Section I(D).

<sup>63</sup> *See Ex. 31* (Shafiq Depo. Tr.) 82:1-83:12, 142:2-6, 194:4-197:24, 297:13-298:5.

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**3. Dr. Shafiq’s Testimony Is Not Based on Sufficient Facts Or Data.**

Dr. Shafiq fails to cite sufficient facts or data, or apply any methodology in reaching his opinions, as is required. *See* Fed. R. Evid. 702(b)-(d). The Fifth Circuit routinely excludes expert testimony when based on unreliable support. *See, e.g., Knight*, 482 F.3d at 355 (rejecting expert testimony where none of the 50+ studies relied upon “gave an adequate basis” for his opinions); *Hathaway*, 507 F.3d at 318 (rejecting expert testimony “[w]ithout more than credentials and a subjective opinion”); *Burst v. Shell Oil Co.*, 650 F. App’x 170, 174 (5th Cir. 2016) (rejecting opinion as “not grounded in a reliable methodology” as multiple cited studies did not “reliably support” expert’s conclusions). Dr. Shafiq’s report is no exception—it should be excluded in its entirety.

**a. Dr. Shafiq’s Opinion That “Google’s Conduct Related to Bid Data Transfer Files And Header Bidding Cannot Be Justified By Privacy” Does Not Cite To Or Rely On Sufficient Evidence.**

In 2024, Google began offering publishers a new type of BDT file that could be joined with other data transfer report files. Dr. Shafiq asserts that this change, permitting publishers to receive *either* joinable or non-joinable BDT files, did not address Google’s privacy concerns that justified the BDT file redactions between 2019 and 2024, and that this demonstrates that “privacy was not a legitimate justification for the [2019] redactions to the BDT files.” *See* Ex. 32 (Shafiq Rpt.) ¶ 29. But Dr. Shafiq fails to provide any reliable, technical explanation to support his assumption that there is no difference between Google’s pre-2019 and post-2024 BDT file formats. *See* Ex. 32 (Shafiq Rpt.) ¶¶ 33 (opining instead about “Google’s true intentions”). Instead, he claims, without providing any underlying support, Google’s 2024 changes were made “without implementing other mitigations.” *Id.* ¶ 25. Nor does Dr. Shafiq cite any record evidence that explains what these fields contained prior to 2019, and therefore, he cannot reliably conclude the 2024 changes contain “the same fine-grained timestamp information as before.” *Id.* ¶ 27.

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Furthermore, Dr. Shafiq cherry-picks which employee's comments he relies on, dismissing the ones that do not support his opinions. *Id.* ¶ 30. For example, while relying on one internal 2019 presentation outlining commentary from a few Google employees regarding Google's decision to redact BDT files, Dr. Shafiq summarily dismisses a legally binding declaration of a 12-year Google employee, [REDACTED], who does provide justification for Google's BDT data redactions—that such data [REDACTED]. Ex. 32 (Shafiq Rpt.) ¶¶ 18-23.<sup>64</sup> His reliance on only some employee comments, while ignoring others, is both misleading and unreliable. *Cf. Knight*, 482 F.3d at 354-55 (excluding expert testimony when weight of survey evidence failed to support opinion).

As with the other failings identified herein, this criticism is nothing new for Dr. Shafiq. In fact, he has a history of offering unsupported and misleading opinions. *Griffith*, 2024 WL 4308813, at \*3 (determining Dr. Shafiq's rebuttal report was "misleading" because he opined "that 100 percent of unmatched data contains phone numbers, email addresses, or cookies" when in fact "at most 1.3 percent of the data contains phone numbers or email addresses"). Thus, Dr. Shafiq's assertion that Google's 2024 changes to the BDT files show "privacy was not a legitimate concern" for the 2019 redactions is based on both a lack of sufficient evidence and incomplete readings of the record and should be excluded.

Moreover, Dr. Shafiq's opinion that "Header Bidding does not present any unique privacy concerns as compared to Google's Open Bidding," Ex. 32 (Shafiq Rpt.) ¶ 34, is unreliable and unsupported. This opinion merely parrots conclusory statements and is based solely on high-level descriptions of Google's Open Bidding fields. Dr. Shafiq fails to explain how these fields compare

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<sup>64</sup> See also Ex. 31 (Shafiq Depo. Tr.) at 128:17-129:1 ("A. I cite Mr. Berntson's declaration ... [It] does not provide context about the specific issue that I was addressing in my report.").

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to those in Header Bidding. Ex. 32 (Shafiq Rpt.) ¶¶ 34-36 & n.59. Dr. Shafiq’s unsubstantiated factual assertions, untethered to actual expert analysis of evidence, should bar this testimony. *See 4.620 Acres of Land*, 576 F. Supp. 3d at 476 (holding experts may not rely on “unsubstantiated assertions”).

**b. Dr. Shafiq’s Opinion That “No Competitor Can Rival Google’s Access to Data” Does Not Cite To Or Rely On Sufficient Evidence.**

Dr. Shafiq opines that “no competitor can rival Google’s access to data.” Ex. 32 (Shafiq Rpt.) ¶ 59. In so doing, Dr. Shafiq cites three publications without any further analyses. *Id.* ¶ 41, n.75-76, 91. In sum, Dr. Shafiq wholly fails to cite evidence that demonstrates that Google has a substantial data advantage or that Google’s competitors cannot compete with their own data in the ad tech ecosystem. *Id.* ¶¶ 37-59. As such, there is no reliable basis for his opinions on Google’s alleged data advantage. *See Kumho Tire*, 526 U.S. at 157.

**c. Dr. Shafiq’s Opinion That “Google’s Privacy Disclosure Stating That It Does Not Sell User Data Is Misleading” Does Not Cite to Or Rely On Sufficient Evidence.**

Dr. Shafiq also does not rely on sufficient evidence to opine that Google is misleading consumers. For example, he cites only a list of all possible data fields that *can* be included in an RTB bid request, the majority of which are optional, with brief high-level descriptions, to conclude that “Google RTB conducts billions of auctions selling users data.” Ex. 32 (Shafiq Rpt.) ¶ 77.<sup>65</sup> And he uses the same insufficient basis to opine that “Google does not offer any control to users to opt-out of the sale of their data in RTB,” while conceding he did not actually investigate whether Google offers any controls (*which it does*). *Id.* ¶ 16(c); Ex. 31 (Shafiq Depo. Tr.) 214:7-20 (“Q.

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<sup>65</sup> Dr. Shafiq testified that “selling” data is commonly understood by computer scientists to mean “the transaction happens that the data is shared and then the other party gets paid.” Ex. 31 (Shafiq Depo. Tr.) 277:15-16. Yet he failed to show any internal documents supporting his conclusion and could not recall searching for any contracts to support his contention that Google sells user data to data brokers. *Id.* 259:15-263:18, 277:6-278:2; Ex. 32 (Shafiq Rpt.) ¶¶ 75-80.

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... You agree that users can turn off anything they don't want used to personalize their ads? ... A. ... [T]his is not something that I specifically investigated for the purposes of this report, hence I cannot reliably answer your question yes or no.”).

Furthermore, Dr. Shafiq mischaracterizes the scarce evidence he does cite. For example, he perplexingly cites Dr. Hoffman's commentary on *AI data use and collection to train deep learning model algorithms*, novel and developing technologies requiring a different magnitude of data with which many users are unfamiliar, to support his opinion that “consumers are generally unaware of the depth and scale of Google's data collection, selling and usage for ad personalization.” Ex. 32 (Shafiq Rpt.) ¶¶ 84-85. Relying on scant or inapplicable surveys and mischaracterized commentary is insufficient. *See Kumho Tire*, 526 U.S. at 157; *Knight*, 482 F.3d at 354-55 (none of 50+ studies relied upon “gave an adequate basis” for expert opinions).

**C. Dr. Shafiq's Opinions Fail to Disclose Materials Relied Upon as Is Required Under Rule 26.**

The final nail in the coffin on the admissibility of Dr. Shafiq's opinions is his failure to disclose materials relied upon in accordance with Rule 26—which is independently fatal to his Report. The Fifth Circuit has held that an expert report must be “detailed and complete” to “avoid the disclosure of ‘sketchy and vague’ expert information.” *Sierra Club v. Cedar Point Oil Co.*, 73 F.3d 546, 571 (5th Cir. 1996); *see also* Fed. R. Civ. P. 26(a)(2)(B)(ii) (expert's report must contain “the facts or data considered by the witness in forming [opinions].”). Yet, Dr. Shafiq testified to using information not disclosed in his Report, in direct violation of Rule 26.

Specifically, Dr. Shafiq conceded that to form his opinions, he relied on his familiarity with Google's public advertising tools from his prior research,<sup>66</sup> and allegedly conducted additional

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<sup>66</sup> *See* Ex. 31 (Shafiq Depo. Tr.) 52:16-20 (“As part of my scholarship, I'm aware of public-facing tools that Google provides for advertising.”); *id.* 254:19-25 (“A. I am a scholar, a scientist, who

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testing to verify the peer-reviewed research he relied on.<sup>67</sup> But as to both of these critical sources of information, Dr. Shafiq “did not feel the need” to mention it.<sup>68</sup>

Dr. Shafiq’s failure to disclose these materials prejudiced Google’s ability to prepare effectively for cross-examination. Fed. R. Civ. P. 26(a)(2)(B) Advisory Committee Notes (confirming disclosure requirements allow parties “to prepare for effective cross examination”). The lack of disclosure additionally requires a significant analytical leap between the data cited and Dr. Shafiq’s conclusions, prejudicing Google’s ability to analyze his opinions. *See Johnson v. Arkema, Inc.*, 685 F.3d 452, 461 (5th Cir. 2012) (rejecting expert testimony for presenting “too great an analytical gap between the data and the opinion proffered”). Indeed, the prejudicial nature of the lack of disclosure—and Plaintiffs’ inability to cure this issue—is demonstrated by the fact that Dr. Shafiq could not articulate in any detail the testing he performed. Ex. 31 (Shafiq Depo. Tr.) 67:20-68:5; *see also McGuire v. Cirrus Design*, 2009 WL 10709194, at \*5-6 (E.D. Tex. Feb. 25, 2009) (rejecting expert’s supplemental report as insufficient under Rule 26 for failure to disclose underlying data of additional testing). Accordingly, Dr. Shafiq’s Report fails to meet Rule

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conducts research in this space. I publish papers .... And the findings of my own papers confirm what is listed – what is shown in the papers that I do cite....”); *id.* 252:1-18 (testifying that his own academic research informed his assertions regarding data brokers).

<sup>67</sup> *See* Ex. 31 (Shafiq Depo. Tr.) 197:6-22; *id.* 82:24-83:4 (“A. ... [W]hen I did read those papers, I did also test and confirm some of the results .... I did not feel the need to [say that in my report]”); *id.* 142:2-6 (“A. I looked at the fields that existed in 2000 ... in 2019 and then the changes that Google made and then the subsequent change ... made in 2024.”).

<sup>68</sup> *See id.* at 256:6-16 (“Q. [W]hen issuing a report as a testifying expert, you are required, under the Federal Rules of Civil Procedure, to list out all of the materials that you relied upon; correct? A. I believe I listed them in Appendix A of my report. Q. And there are no papers authored by Zubair Shafiq listed in Appendix A in your report; correct? ... A. That’s correct.”); *See also id.* 252:21-253:1 (“I could have cited some of my own research as well, but I decided that the citations that I ended up leaning on in my report were sufficient.”); *id.* 297:9-298:5 (“A. I also analyzed various websites to confirm that the results are indeed what I am seeing in my own testing.... Q. You never said in your report that you crawled any websites; correct? ... A. I did not use those exact words in my report.”).

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26's disclosure standards, as well as Rule 702 for the reasons explained above, and his opinions must be excluded.

**VII. Professor Pathak's Opinions that the Ad Tech Industry Could be More Efficient and Transparent Should be Excluded.**

Plaintiffs retained Professor Parag Pathak to offer economic opinions about whether Google and the ad tech industry follow certain "market design principles."<sup>69</sup> Ex. 39 (Pathak Rpt.) ¶ 2. In his reports, Professor Pathak asserts that the ad tech marketplaces "do not function well" because they fail to follow each of *his* market design principles. *Id.* ¶ 19. He also asserts that, had Google followed these principles, it would have been more transparent with publishers and advertisers. *Id.* ¶¶ 20, 53-58. In short, Professor Pathak believes that, had he been in charge, he could have engineered a more efficient and transparent ad tech industry. Even if that were true, these opinions are not relevant to any issue in this case, so this testimony must be excluded.

Professor Pathak admits that he does "not provide conclusions about whether Google's conduct is anticompetitive." *Id.* ¶ 2. Instead he relies expressly upon Professor Joshua Gans' opinions on issues of market power, market definition, and anticompetitive effects. *Id.* ¶¶ 2, 8. Moreover, the antitrust laws do not require firms to be "efficient" and do not penalize firms for "not function[ing] well." *Id.* ¶¶ 2, 19. Nor do the state DTPA laws require firms to disclose every detail about a product. Professor Pathak's idiosyncratic opinions about his own views of what would be an optimal level of efficiency and transparency in a perfectly designed ad tech industry thus are not relevant to this case, they do not fit the facts and could mislead a jury. They should be excluded.

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<sup>69</sup> Professor Pathak also opines on structural and behavioral remedies. This motion only discusses Professor Pathak's opinions to the extent they relate to liability. Google reserves the right to challenge Professor Pathak's opinions related to remedies in a later phase of this litigation.



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**A. Professor Pathak’s Analyses are Irrelevant to Antitrust Liability.**

Whether expert testimony is relevant “depends on whether the expert’s reasoning or methodology properly can be applied to the facts at issue.” *Rodriguez v. GPI MS-N, Inc.*, 2016 WL 5868580, at \*1 (S.D. Miss. Oct. 6, 2016); *see also Daubert*, 509 U.S. at 591 (expert testimony must “fit” the facts and does so when it is relevant to an issue to be decided in the case). In *Rodriguez*, the defendant sought to admit the expert testimony of an engineer for his opinion that a grassy median on which the plaintiffs had been injured was properly designed and constructed. *Rodriguez*, 2016 WL 5868580, at \*1. The court found the expert’s opinion to be irrelevant and excluded it because the plaintiffs had not alleged design or construction defects but rather that the defendants had been negligent in not keeping the median free of hazards. *Id.* Professor Pathak similarly misses the mark: Plaintiffs’ antitrust claims are not that the ad tech industry could have been designed better or that Google could have been more efficient. Rather, Plaintiffs claim that Google had monopoly power in certain antitrust markets and engaged in anticompetitive conduct in the markets as they *existed*. Professor Pathak’s opinions about optimal market design offers no help in assessing market definition, monopoly power, or anticompetitive effects—as Pathak himself concedes by expressly leaving those questions to other experts.

Professor Pathak’s opinions about maximizing marketplace efficiency are unrelated to the key facts Plaintiffs must prove to demonstrate antitrust liability: Whether a defendant had monopoly power in a relevant market and engaged in anticompetitive conduct. The Court need look no further than the first few paragraphs of his opening report to see why it is not relevant to prove any fact “of consequence.” Fed. R. Evid. 401(b). Professor Pathak “do[es] not provide conclusions about whether Google’s conduct is anticompetitive” and instead “rel[ies] on Professor Gans’ findings on market power and market definitions” as well as “anticompetitive effects.” Ex. 39 (Pathak Rpt.) ¶¶ 2, 8. While Professor Pathak claims that some of his independent analysis

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“overlaps” with Professor Gans’ opinions, Ex. 38 (Pathak Depo. Tr.) 70:3-71:16; 78:15-79:14, he acknowledges that he has not done a “traditional antitrust economics analysis,” *id.* at 78:19-79:14, and nowhere in his opening or rebuttal reports does he attempt to test empirically whether advertisers or publishers overall were made worse off as a result of Google’s alleged conduct or if competition in fact was harmed.

Professor Pathak’s views about optimal market design and whether ad tech “functions well” have nothing to do with antitrust liability and so should be excluded from the liability phase. *United States v. 4.620 Acres of Land, more or less, in Hidalgo Cnty., Tex.*, 576 F. Supp. 3d 467, 474 (S.D. Tex. 2021) (“Expert testimony which does not relate to any issue in the case is not relevant and, ergo, non-helpful.”). Put simply, as Professor Pathak himself acknowledges, just because a market does not function well and may be inefficient does not mean it is not competitive. Ex. 38 (Pathak Depo. Tr.) 24:23-25:5 (“Q. Okay. And it’s also possible that you could have a market in which you have market power, which in your market design field is a market inefficiency, but it is still competitive, correct? A. There are cases where that can occur, yes.”).

These opinions also risk confusing the issues, *see* Federal Rule of Evidence 403, because in many instances his market design analysis *conflicts* with antitrust law. For instance, Professor Pathak testified that from a market design perspective, a dominant firm may have a special obligation to share its innovations with its competitors in order to make the market more efficient. *See* Ex. 38 (Pathak Depo. Tr.) 65:7-16. This is *not* the law. The Supreme Court has been clear that not even a monopolist has a “duty to aid a competitor” outside of a few rare exceptions inapplicable here. *Verizon Commc’ns Inc. v. L. Offs. of Curtis V. Trinko, LLP*, 540 U.S. 398, 411 (2004).

Likewise, Professor Pathak states that when he evaluates whether conduct is anticompetitive through a market design lens, he does *not* focus on the impact on consumers. Ex.

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38 (Pathak Depo. Tr.) 40:18-42:6 (“Q. But in terms of evaluating if a market is competitive, do you agree that the principle stakeholder is the consumer that you would look at? A. Not necessarily. ... Q. And so a consumer could be better off, but a producer could be harmed, and that could be bad for competition, in your view? A. In principle, in the abstract, yes.”). This is again contrary to well-settled precedent requiring courts to apply a *consumer-welfare* standard when evaluating whether challenged conduct harmed competition in violation of the antitrust laws. *See, e.g., Reiter v. Sonotone Corp.*, 442 U.S. 330, 343 (1979) (finding “Congress designed the Sherman Act as a ‘consumer welfare prescription.’” (quoting R. Bork, *The Antitrust Paradox* 66 (1978))); *Brooke Grp. Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 221 (1993) (referencing “antitrust laws’ traditional concern for consumer welfare and price competition.”).

Professor Pathak has also explained that a well-designed marketplace is “thick,” meaning a large number of buyers and sellers participate, and has further suggested that such participation should not be limited. Ex. 39 (Pathak Rpt.) ¶¶ 50-51. But applying his principle of “thickness” to ad tech would suggest that a *single* ad exchange in which all buyers and sellers can transact is better than a more fragmented marketplace with multiple competing exchanges. *See* Ex. 38 (Pathak Depo. Tr.) 154:8-11 (admitting that in an example marketplace “the aspiration” is “having one centralized marketplace”). This approach advocates a *decrease* in competition. The central purpose of the antitrust law is to *protect* competition. Here, the prospect that Professor Pathak’s testimony would confuse and mislead on this crucial point is even greater: the primary markets he has studied—primary school matching, medical resident matching, and military cadet matching marketplaces—are all not-for-profit marketplaces in which there is no price competition, and participants are offered only a single option. *See* Ex. 39 (Pathak Rpt.) ¶ 35. These bear no

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resemblance to the highly competitive, for-profit ad tech industry, so these opinions again do not “fit” the facts or any issues that must be decided here.

In sum, Professor Pathak’s market design opinions about how an “economic engineer” would construct the most efficient market are completely irrelevant. Antitrust liability does not turn on whether a market is “optimal” or even if it “functions well.” Because Professor Pathak’s opinions will not help a jury “separate lawful from unlawful conduct,” they should be excluded. *Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1057 (8th Cir. 2000).

**B. Professor Pathak’s Analyses Are Irrelevant to DTPA Liability.**

Professor Pathak’s opinions that Google’s “lowered transparency for publishers and advertisers” are not relevant to Plaintiffs’ state DTPA claims, either. Ex. 39 (Pathak Rpt.) ¶ 20. Professor Pathak never explains what conduct is deceptive under the relevant state DTPA laws, and he does not purport to be an expert in identifying deceptive practices. Instead, Professor Pathak explains that “transparency” is one of the principles of market design he looks at when evaluating whether a *market* is functioning well. *Id.* ¶ 40. While he opines that Google’s conduct “reduced transparency for publishers and advertisers,” he does not explain whether, and if so why, Google’s conduct crossed the line from simply not meeting his preferred level of transparency to actually deceiving individual ad buyers or ad sellers.<sup>70</sup> *Id.* ¶ 20. Nor could he provide any expertise in this regard as a market design economist.

First and most obviously, any opinion on what it means for something to be “deceptive” must be excluded because it usurps the province of both the Court, *Reitz*, 85 F.4th at 788, and the jury, *Samuel*, 2015 WL 12748648, at \*14 (jury can readily evaluate deception on their own after hearing the evidence “there is no need for expert testimony on this point”). The Court instructs the

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<sup>70</sup> Professor Pathak claims that the following Google features “lowered transparency”: Bernanke, DRS, and RPO. Ex 39 (Pathak Rpt.) ¶ 20.

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jury on the legal definition of deceptive acts or practices. Under the statutes invoked in Count VI, no State makes Google (or anyone, for that matter) liable for failing to create or maintain a “transparent market.”<sup>71</sup> It is also the province of the factfinder, whether that is a jury or the Court, to decide whether conduct *is* deceptive. Expert testimony on that is not admissible.

Second, this opinion suffers from a pronounced gap in proof that again risks confusion. Not only does Professor Pathak fail to explain when “reduced transparency” could amount to deception, he acknowledges that many times the lack of transparency is due to what he considers inefficient market design, not deception. For example, one marketplace Professor Pathak studied is the matching marketplace that allocates West Point cadets to military assignments. In Professor Pathak’s opinion, this marketplace lacked transparency because the participants did not fully understand how the allocation system worked. Ex. 38 (Pathak Depo. Tr.) at 246:18-248:9. He testified the issue with the cadet-allocation system was *not* that there was any actual deception, but rather that the individuals at West Point responsible for creating the systems “had not interacted with market design scholars,” which resulted in protocols that were confusing to cadets and incentivized them not to submit their actual preferences. *Id.* at 247:17-249:13. In another example, Professor Pathak testified that the Boston public school allocation system “was not very transparent” even though participants understood the rules for how the allocation system worked. *Id.* at 273:13-274:23. He explained that the lack of transparency reflected failure to create a system that prevented participants from gaming the system (i.e., “strategy proofing” the marketplace), with no mention of any deception by the auction designers. *Id.* Because lack of transparency is not a “deceptive act or practice” under any DTPA statute at issue here, there is an obvious danger that

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<sup>71</sup> In fact, none of the allegations in Count VI, “Supplemental State Law Deceptive Trade Practices Claims,” make any claim resembling a failure to create or maintain a transparent *market*. See FAC ¶¶ 674-758.

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permitting this testimony could mislead and confuse a jury on the crucial elements of DTPA liability. The testimony on “transparency” should therefore be excluded under Rule 403, in addition to Rule 702.

In fact, Professor Pathak acknowledged that there could be instances in which a market has “too much transparency” and that the optimal level of transparency for efficiency purposes is a fact-specific exercise. *Id.* at 258:21-259:1, 259:24-262:8. But nowhere in his reports does Professor Pathak articulate or apply a framework for how to analyze specific factual circumstances to determine when greater transparency is beneficial. Without a clear methodology, he simply applies an “I know it when I see it” analysis and asserts that more transparency in Google’s ad tech would be better. *Id.* at 251:7-10 (“So how do I apply transparency, the market design principle of transparency here? What I would like to see is the bidders have full knowledge of what the auction rules are.”). That renders his opinion excludable. *See Hathaway*, 507 F.3d at 318 (A basis in “sufficient facts and a reliable methodology is in all instances mandatory. Without more than credentials and a subjective opinion, an expert’s testimony that ‘it is so’ is not admissible.”). And he does so without having spoken to a single advertiser or publisher to determine whether they have the information they need, whether greater transparency would be beneficial, or whether receiving more information would be burdensome. This is a pure and impermissible *ipse dixit*, which must be excluded under *Daubert* and *General Electric*.

**C. Professor Pathak’s Opinions Would be Confusing to the Jury.**

All of this shows why Professor Pathak’s market design opinions are not only irrelevant under Rules 401 and 402, but also should be excluded under Rule 403. Professor Pathak’s methodology was to compare Google’s conduct with those of hypothetical participants in optimally efficient markets. This analysis has a high likelihood of confusing the jurors on both the antitrust and DTPA claims, Jurors may have trouble deciphering the difference between behavior

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that is merely inefficient and behavior that is anticompetitive or deceptive. Allowing Professor Pathak’s testimony would also confuse the jury and mislead them on key points: he improperly conflates market *design* and the concepts of optimal efficiency and transparency with the *fundamentally different and relevant question* whether Google acted anticompetitively or deceptively. Any confusion by the jury in this regard could have serious repercussions. It relieves Plaintiffs of their burden to show anticompetitive behavior and deceptive acts and practices, substituting a legally irrelevant and non-actionable standard of “market transparency” that appears in *none* of the antitrust and DTPA statutes at issue here. There is no benefit to allowing this evidence; to the contrary, it invites a decision on a basis that cannot, as a matter of law, sustain liability as to Google on any theory. For all these reasons, the testimony of Professor Pathak must be excluded under Rules 401, 402, 403, and 702.

**VIII. Professor Rudin’s Opinions Are Unreliable and Should Be Excluded In Their Entirety Under Rule 702 As Inadmissible Ipse Dixit And Under Rule 403 As Likely To Mislead And Confuse The Jury**

Professor Cynthia Rudin claims without basis that publishers and advertisers cannot experiment to improve (or “optimize”) their advertising strategies because Google’s purported data advantages, auction optimizations, and insufficient disclosures about those optimizations render machine learning ineffective.<sup>72</sup> She provides no reliable methodology for these theoretical opinions and does not apply her stated expertise in machine learning theory to the factual realities of this case.

As a threshold matter, Professor Rudin does not establish *whether* and *how* advertisers and publishers actually use (or want to use) machine learning to improve their outcomes. Instead, she

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<sup>72</sup> See Ex. 41 (Rudin Rpt.) ¶¶ 22-27.

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takes as a “given”<sup>73</sup> that they do use (or want to use) machine learning, and then theorizes that advertisers and publishers *could* be prevented from deploying machine learning models to optimize their outcomes without providing any empirical evidence that they *were* prevented from doing so. Beyond that, she failed to analyze—let alone prove—*what* data advertisers and publishers supposedly lack for any such machine learning models; *what* data advertisers and publishers do have (including from sources other than Google); *how* machine learning capabilities and data requirements have changed over the past ten-plus years at issue; and *whether* and *how* the supposed lack of data actually impacted the ability of a single advertiser or publisher to experiment to improve their strategies.

In purporting to respond to a simple proposition from Google’s experts that advertisers and publishers can learn through experimentation to improve their outcomes,<sup>74</sup> Professor Rudin could have attempted to prove that is *not* the case by using the voluminous documents, data, and testimony in the record from advertisers, publishers, and third-party ad tech providers, or used the large transaction-level data sets in the record to attempt to build a machine learning model herself. But she did none of that. Instead, Professor Rudin offers the unsubstantiated claim that advertisers and publishers need “more data,”<sup>75</sup> and effectively proposes to tell the jury that they should believe

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<sup>73</sup> Ex. 40 (Rudin Depo. Tr.) at 96:23-97:1 (“Q. One given in your report is that buyers and sellers will use machine-learning models; correct? A. Correct.”); *see also* Ex. 41 (Rudin Rpt.) ¶ 51 (“I am going to start building my ML Abstracted Auction on a set of postulates or givens.”), ¶ 52 (“In my ML Abstracted Auction, it is given that both buyers and sellers will use ML models to get a more precise estimated value of the auction item”); ¶¶ 148, 163, 172, 183, 191 (describing how her abstractions mirror Google’s optimizations).

<sup>74</sup> Ex. 41 (Rudin Rpt.) ¶ 23.

<sup>75</sup> *See* Ex. 40 (Rudin Depo. Tr.) at 119:18-120:4 (“[T]he more information ... the more they could use that data to make better decisions”), 104:12-108:4 (“[I]f [buyers and sellers] had access to all of that data I think they would probably want to use that data ... [e]verybody wants access to more data. Data is valuable ... [d]ata’s the new oil ... I believe everybody wants access to more data, because the more data you have, the better you can estimate, predict, act”); *see also, e.g., id.* at 69:11-22, 185:13-16, 187:11-22, 218:18-220:25, 221:1-14.



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her because she, as a machine learning expert, says so. With “nothing more than [an] unsupported conclusion” that “it is so,” Professor Rudin’s opinions are inadmissible *ipse dixit* and should be excluded in their entirety as unreliable and likely to mislead and confuse the jury under Federal Rules of Evidence 702 and 403. *See, e.g., Hathaway*, 507 F.3d at 318 (“The existence of sufficient facts and a reliable methodology is in all instances mandatory. Without more than credentials and a subjective opinion, an expert’s testimony that ‘it is so’ is not admissible.”) (cleaned up); *Boyd*, 158 F.3d at 331 (similar); *Guillory v. Domtar Indus. Inc.*, 95 F.3d 1320, 1331 & n.11 (5th Cir. 1996) (expert testimony may be excluded under Rule 403 where it involves “highly technical information” that “would confuse the jury”).

**A. Professor Rudin’s Opinions Rest on Abstract Theory Untethered To Facts.**

Professor Rudin’s opinions that publishers and advertisers would not be able to experiment to improve their outcomes as a result of Google’s auction optimizations are based on generalized machine learning theory and hypothetical abstract auctions that Professor Rudin herself concedes are “completely general.”<sup>76</sup> Professor Rudin makes no attempt to fit those opinions to *this case* by (1) applying her theories about machine learning to the specific context of the ad tech industry; or (2) demonstrating with a reliable and testable methodology that Google’s purported data advantages, auction optimizations, and alleged insufficient disclosures *actually* impacted the ability of a single Google advertiser or publisher customer to experiment to improve their advertising outcomes. All of her opinions should be excluded as unreliable.

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<sup>76</sup> *Id.* at 95:11-18 (stating she used “machine-learning abstracted [auctions] to illustrate how various Google optimizations operate”), 102:24-103:4 (analogizing auction items from her “completely general” abstract models to ad impressions in the ad tech industry); Ex. 41 (Rudin Rpt.) ¶¶ 50-109, 148, 163, 172, 183, 191 (Rudin describes machine learning models in a hypothetical auction between buyers and sellers and changes the rules for different auctions to allegedly “mirror” the operations of Google’s optimizations, called “Program B” (Bernanke) “Program LL” (Last Look), “Program SSD” (DRS), “Program R” (RPO), and “Program E” (EDA)).

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**1. Professor Rudin Fails to Ground Her Opinions In The Context Of The Advertising Technology Industry.**

Professor Rudin’s opinions are inadmissible because they do “not apply to the specific facts of the case.” *Diggs v. Citigroup, Inc.*, 551 Fed.Appx. 762, 765 (5th Cir. 2014). Professor Rudin’s conclusions are not grounded in the actual practices and preferences of advertisers and publishers in the industry. To the contrary, Professor Rudin acknowledged she is not an expert in ad tech, has no industry-specific experience working for an ad tech company, has no teaching experience specific to ad tech, and, according to her *Curriculum Vitae*, has not authored any articles or other publications specific to ad tech.<sup>77</sup> For good reason, then, she disclaimed knowledge of how advertisers and publishers operate in the industry—explicitly stating that she does not know “who does what in the industry”; does not know how many publishers or advertisers (if any) utilize machine learning models; she “can’t tell you what advertisers expect” of their ad tech tools; and would defer to “some of the other” expert reports for a better understanding of the industry.<sup>78</sup>

But Professor Rudin cannot reliably opine on what advertisers and publishers purportedly *need* without knowing what they *do* or what they *want*. And despite acknowledging her lack of

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<sup>77</sup> Ex. 40 (Rudin Depo. Tr.) at 16:24-17:1 (“Q. You do not list that you have expertise in display advertising technology; correct? A. In this paragraph I do not list that I’m an expert in display advertising. My expertise is relevant to display advertising.”), 17:18-22 (“Q. Have you ever worked for a company that provides advertising technology products? A.... I don’t believe I’ve worked for a company that provides advertising technology.”), 21:2-24:3 (discussing general courses in machine learning and statistics, with no mention of any specific courses on advertising technology), 25:1-7 (“Q. Have you ever used ... your machine-learning expertise in the display advertising technology industry before this case? A. I’ve used and developed datasets that involved advertising. I have not worked ... for a – for a technology – company that does display advertising.”); Ex. 41 (Rudin Rpt.) Section IX Appendix A: Curriculum Vitae (listing no specific courses on advertising technology and no authored or peer-reviewed publications about advertising technology).

<sup>78</sup> Ex. 40 (Rudin Depo. Tr.) 74:17-75:7; *see also id.* at 92:25-93:6 (“Q. So advertisers come to Google Ads to help them achieve their goals that we talked about earlier, and advertisers expect Google Ads to use the information that Google Ads has to achieve the advertisers’ goals; correct? A. I’m not an advertiser, and I can’t tell you what advertisers expect”), 98:10-16 (“Q. Did you evaluate the percentage of buyers in the ad tech industry that develop machine-learning models?

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expertise or experience in ad tech, Professor Rudin did not undertake a structured or methodical approach to acquire the industry-specific knowledge necessary to reliably apply her generalized expertise in machine learning to this case. For example, Professor Rudin offers opinions that advertisers and publishers need more data to optimize their machine learning models—relying on the unproven, blanket assertion that “everybody wants access to more data.”<sup>79</sup> Despite that overly simplistic generalization, Professor Rudin acknowledged that the information auction participants actually want and need to optimize is “very heavily context dependent.”<sup>80</sup> But Professor Rudin did not analyze that context to form her opinions in this case. Professor Rudin concedes that she did not conduct any interviews, surveys, or analysis of any advertisers, publishers, or third-party ad tech providers<sup>81</sup> to determine if and how they use machine learning in the context of the ad tech

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A. I would refer to some of the other reports for kind of, like, the overall view of the industry since I'm not really an expert on that -- you know, who does what in the industry.”), 99:5-10 (“Q. Did you analyze the percentage of sellers in the ad tech industry that have machine-learning models? A. So, again, since I am not an expert in who does what in this industry, I would refer to others, other reports, for that information.”).

<sup>79</sup> *Id.* at 106:15-25 (“Q. Those Google internal documents are the only source that helped you reach that conclusion ... That publishers want access to more data. A. Everybody wants access to more data. Data is valuable. Q. That's your assumption; correct? A. That's based on ... my 20 years of knowledge working in this field.”).

<sup>80</sup> *Id.* at 103:10-13 (“Q. And in your opinion, what types of factors would a buyer consider in estimating the valuation? A. This is very heavily context dependent.”), 101:14-102:13 (“Q. ... Do you have an opinion on what [auction participants] need to know in order to construct their valuation model? ... A. I think it depends on the context. That's very context dependent.”).

<sup>81</sup> *Id.* at 55:12-18 (“Q. Professor Rudin, ... did you do any analysis of any company's ad tech products or programs for any other company besides Google, any third-party companies? A. No.”), 88:21-89:7 (“Q. ... It's true that for [non-Google] buy-side tools or ad exchanges they will have an advantage over individual publishers and advertisers; correct? ... A. I don't have information - I don't opine on what other intermediaries' data access is. Other than Google.”), 93:7-9 (“Did you interview any advertisers in connection with this case to form your opinions? A. No.”), 97:11-16 (“Q. Did you interview any buyers in the ad tech industry about their use of machine learning models? A. No. I had sufficient information to construct my report without interviewing additional people.”), 98:24-99:4 (“Q. Did you interview any sellers in the ad tech industry about their use of machine-learning models in the industry? A. I had sufficient information to construct my report, so I didn't interview any, you know, additional people, including sellers.”), 105:2-8 (“Q. Did you interview any advertisers to reach your conclusion that advertisers would want to use this data? A.

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industry,<sup>82</sup> or the additional data they need (if any) to optimize their strategies. Nor did Professor Rudin rely on the documents, data, or testimony<sup>83</sup> in this case from any of the publishers, advertisers, or third-party ad tech providers<sup>84</sup> that she claims are harmed by Google's auction optimizations and data advantages. Instead, she summarily asserts, "I would be absolutely shocked if advertisers wouldn't want to use this data," and that "I don't need to talk to any advertisers directly to determine that this data would be valuable." Ex. 40 (Rudin Depo. Tr.) at 105:2-16; *see also Viterbo*, 826 F.2d at 422 ("If an opinion is fundamentally unsupported, then it offers no expert assistance to the jury."). Likewise, for publishers, she makes the vague, generic claim that "publishers really want access to more data"<sup>85</sup>—based solely on her interpretation of Google's

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This kind of data is very useful for determining valuations and bids. So I would be absolutely shocked if advertisers wouldn't want to use this data.").

<sup>82</sup> *Id.* at 98:10-16 ("Q. Did you evaluate the percentage of buyers in the ad tech industry that develop machine-learning models? A. I would refer to some of the other reports for kind of, like, the overall view of the industry since I'm not really an expert on that -- you know, who does what in the industry.").

<sup>83</sup> Ex. 41 (Rudin Rpt.) Section X Appendix B, Section I: Materials Relied Upon (listing no third-party depositions or data sources, and no third-party documents other than one document produced by Gannett).

<sup>84</sup> Ex. 40 (Rudin Depo. Tr.) at 86:15-87:8 ("...Q. So in this case there have been massive productions of detailed auction data. There's been log-level data ... from Google, and similar large productions from third-party ad tech companies such as Amazon, Criteo, Trade Desk, and several others. Did you attempt, in connection with this case, to build a machine-learning model that analyzed that data? A. I had sufficient information to construct my opinions in my report, so I didn't need to create machine-learning models from that data."); *see also id.* at 49:18-20 ("Q. You had access to all of the documents produced in this case; is that correct? A. Yes."), 49:21-23 ("Q. You had access to all of the deposition transcripts in this case; is that correct? A. Yes."), 51:8-12 ("Q. Any other documents, data or materials produced by a party in this case that you relied on that are not listed in your report? A. I don't believe so."), 93:20-24 ("Q. Did you review any produced materials in this case by advertisers? ... A. I don't recall any.").

<sup>85</sup> *Id.* at 106:5-14.

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internal documents,<sup>86</sup> without conducting any independent analysis of documents, data, testimony, or other evidence from even a single publisher.

**2. Professor Rudin Fails to Demonstrate That Google’s Purported Data Advantage And Auction Optimizations Actually Impacted The Ability Of Advertisers And Publishers To Experiment To Improve Their Outcomes.**

Professor Rudin fails to substantiate her generalized machine learning theory with any quantitative or qualitative analysis of the extensive record in this case, and also fails to consider alternatives to machine learning, benefits from Google’s alleged conduct, and relevant historical context in the industry. As a result, she has failed to show any *actual* impact resulting from the supposed data advantage and auction optimizations she complains of—in particular, she does not even attempt to show that a single publisher or advertiser was *in fact* unable to experiment to improve their outcomes. In the absence of any such analysis of actual impact, Professor Rudin cannot substantiate her opinions regarding (i) *whether*—and, if so, *what*—additional data for advertisers and publishers would be useful or necessary to enable successful optimization of advertising strategies; and (ii) *whether* Google’s auction optimizations (and alleged insufficient disclosures of those optimizations) impacted the ability of any publishers or advertisers to optimize.

The Court is therefore left to evaluate Professor Rudin’s theoretical claim that advertisers and publishers “would struggle to arrive at optimal strategies due to Google’s auction manipulations”<sup>87</sup> without any reliable methodology or analysis to prove, based on the facts of this

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<sup>86</sup> Even when reviewing Google’s documents, Professor Rudin’s methodology is unreliable, as she selectively relied on certain content that she claims supports her opinion but questioned or ignored content in the same documents that undermines her opinion. *See, e.g., id.* at 153:11-160:9.

<sup>87</sup> *Id.* at 77:12-77:24 (“Q. Is it your opinion that Google’s supposed auction manipulations are the cause of customers’ inability to experiment to arrive at optimal strategies? A.... Yeah, due to Google’s auction manipulations, sellers and buyers would not be able to experiment to arrive at optimal strategies, and I gave several reasons, many reasons throughout this report”), 243:2-10 (Q.... your opinion is that due to Google’s auction manipulations sellers and buyers would not be

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case, that advertisers and publishers in fact struggled to arrive at optimal strategies, let alone any reliable methodology or analysis to demonstrate the reasons for those purported struggles. Professor Rudin's opinions should be excluded as unreliable because they rely on "speculative premises" based upon "unsupported conjectures." *Hathaway*, 507 F.3d at 318; *see also Johnson*, 685 F.3d at 461-62 (excluding an expert opinion where there was "too great an analytical gap between the data and the opinion proffered.").

*No Quantitative Analysis.* Despite having been engaged nearly three years ago<sup>88</sup> and having full access to the massive discovery record in this case (including transaction-level data produced by Google for hundreds of billions of impressions and large transaction-level data productions from 11 third parties), Professor Rudin did not perform any quantitative analysis of the transaction-level data (or any other data or materials). With this substantial volume of data, Professor Rudin could have used the data (or a subset of the data) to attempt to build the type of machine learning model that she asserts advertisers or publishers would want to create if they had access to this data.<sup>89</sup> Had she been *unable* to do so, even with that amount of data, she might have been able to substantiate her principal thesis, or perhaps attempt to develop some other quantitative support for her opinions. Instead, she didn't even try. Nor did she do any other analysis to

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able to experiment to arrive at optimal strategies; is that correct? A. Yes. Sellers and buyers have a very hard time experimenting. They would struggle to arrive at optimal strategies due to Google's auction manipulations.").

<sup>88</sup> Professor Rudin was retained by the Plaintiff States on July 5, 2021, and started working on this case in 2021, though she only served a rebuttal report dated September 9, 2024. *See* Ex. 40 (Rudin Depo. Tr.) at 36:4-23; Ex. 41 (Rudin Rpt.) ¶ 1 n.1.

<sup>89</sup> Ex. 40 (Rudin Depo. Tr.) at 86:21-87:8 ("Q. So in this case there have been massive productions of detailed auction data.... Did you attempt, in connection with this case, to build a machine-learning model that analyzed that data? A. I had sufficient information to construct my opinions in my report, so I didn't need to create machine-learning models from that data.").

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demonstrate that any publishers or advertisers were unable to experiment to improve their outcomes.

*No Qualitative Analysis.* Nor does Professor Rudin supplement her lack of empirical support with any qualitative analysis of the record in this case, making no use of advertisers' or publishers' deposition testimony<sup>90</sup> or the over 7 million documents<sup>91</sup> and large volumes of data produced by over 300 third parties (including documents and data from advertisers and publishers). Likewise, because she conducted no interviews,<sup>92</sup> surveys, or analysis of any advertisers, publishers, or third-party ad tech providers,<sup>93</sup> Professor Rudin's opinions make no attempt to: (a) establish *if* and *how* these industry participants use machine learning in the context of ad tech; (b) identify the data advertisers and publishers do not have, but that would be useful or necessary to improve their outcomes; (c) conduct any analysis of what data advertisers and publishers actually

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<sup>90</sup> *Id.* at 49:21-23 ("Q. You had access to all of the deposition transcripts in this case; is that correct? A. Yes."); *see also* Ex. 41 (Rudin Rpt.) Section X, Appendix B: Section I: Materials Relied Upon, Part B. Depositions and ROG Responses (listing none of the deposition transcripts of more than 50 advertisers, publishers, and third-party ad tech providers available to Plaintiffs).

<sup>91</sup> Ex. 40 (Rudin Depo. Tr.) at 49:18-20 ("Q. You had access to all of the documents produced in this case; is that correct? A. Yes."); *see also* Ex. 41 (Rudin Rpt.) Section X, Appendix B: Section I: Materials Relied Upon Part C. Documents from Production (listing no third-party documents besides one document produced by Gannett).

<sup>92</sup> Ex. 40 (Rudin Depo. Tr.) at 38:25-39:6 ("Q. Did you conduct any interviews in this matter in connection with preparing your report? A. No. Q. Were there any interviews that you wanted to conduct in this matter but did not get an opportunity to do? A. No.").

<sup>93</sup> *Id.* at 93:7-9 ("Did you interview any advertisers in connection with this case to form your opinions? A. No."), 97:11-16 ("Q. Did you interview any buyers in the ad tech industry about their use of machine learning models? A. No. I had sufficient information to construct my report without interviewing additional people."), 98:24-99:4 ("Q. Did you interview any sellers in the ad tech industry about their use of machine-learning models in the industry? A. I had sufficient information to construct my report, so I didn't interview any, you know, additional people, including sellers."), 105:2-8 ("Q. Did you interview any advertisers to reach your conclusion that advertisers would want to use this data? A. This kind of data is very useful for determining valuations and bids. So I would be absolutely shocked if advertisers wouldn't want to use this data."); *see also id.* at 55:12-18 ("Q ... did you do any analysis of any company's ad tech products or programs for any other company besides Google, any third-party companies? A. No.").



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have access to, including from sources other than Google, such as third-party buying and selling tools; or (d) conduct any analysis of whether Google’s auction optimizations (or alleged insufficient disclosures of those optimizations) actually prevented any advertisers or publishers from experimenting to improve their outcomes.<sup>94</sup>

*No Analysis of Alternatives, Benefits of Optimizations, or Historical Context.* Professor Rudin’s opinions do not reliably analyze the impact on advertisers and publishers in several other ways. First, while Professor Rudin recognizes that advertisers and publishers could “conduct experiments,” conduct “A/B testing across their own limited data,”<sup>95</sup> or use “simple statistics”<sup>96</sup> as alternatives to ML models, she does not analyze whether these are sufficient to improve outcomes. Second, Professor Rudin fails to account for the benefits that Google’s optimizations provide to advertisers and publishers, and attempts no analysis at whether these benefits would outweigh the potential downsides she theorizes in her report—making clear that her report is “not weighing in on the relative merits” of Google’s conduct, or the relative harms and benefits of Google’s conduct.<sup>97</sup> Third, Professor Rudin concludes that Google’s auction optimizations caused

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<sup>94</sup> See, e.g., *id.* at 55:12-18 (Q.... did you do any analysis of any company’s ad tech products or programs for any other company besides Google, any third-party companies? A. No.”).

<sup>95</sup> Ex. 41 (Rudin Rpt.) ¶ 111 (“Whereas individual buyers or sellers could only conduct experiments or A/B testing across their own limited data, Google’s display ad business could leverage all the data it had access to, as well as knowledge of its own auction manipulations.”); see also *id.* ¶ 39 (defining A/B Testing as “a way to compare two versions (A and B) of something to understand which version performs better” and “run[ning] experiments trying both versions A and B on a sufficiently large sample to see which leads to superior outcomes according to an objective”).

<sup>96</sup> Ex. 40 (Rudin Depo. Tr.) at 100:8-15 (“So do you agree that machine learning is not the only method to estimate the value of the item? ... A. You could use very simple statistics to estimate value if you like. I don’t know if that would fall under machine learning. Some of it does.”).

<sup>97</sup> *Id.* at 236:10-24 (“Q. But you don’t offer an opinion that an increase in variance in auction results is necessarily a bad thing for advertisers or publishers; correct?... A. So in the case of Google’s conduct, the extra variance makes it harder to do the estimation. Q. And making it harder to do the estimation outweighs any other potential benefits to the publisher or advertiser from the



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advertisers and publishers to be unable to use machine learning to improve their outcomes despite conducting no analysis of relevant historical context in the industry. Even assuming advertisers and publishers could not currently use machine learning to improve outcomes, she does not provide any benchmark of the ability of advertisers and publishers to optimize their strategies before Google’s auction optimizations existed (the “before”) to serve as a basis for her conclusion that they are unable to do so today *because of* Google’s optimizations (the “after”).<sup>98</sup>

**B. Professor Rudin’s Unreliable Opinions Are Likely to Mislead And Confuse The Jury And Unfairly Prejudice Google.**

While Professor Rudin’s assertions based on generalized machine learning theory are not probative to the specific context of the ad tech industry at issue in this case and fail to show any actual impact, they do contain technically complex subject matter that raises an inherent risk “for the jury to get lost in the labyrinth of concepts.” *Guillory*, 95 F.3d at 1331. In light of preconceptions held by many in today’s society about the rapid adoption of artificial intelligence across numerous applications, the proliferation of data, and associated privacy issues, the Court must apply Rule 702, together with Rule 403, to closely scrutinize Professor Rudin’s opinions. These opinions attempt to invoke machine learning—which she describes as “a branch of artificial

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product? A. I’m not weighing in on the relative merits of, you know, you hurt them one way and you benefit another way. That’s not something I can do.”).

<sup>98</sup> *Id.* at 79:15-80:12 (“Q. Do you have any evidence that prior to any of the conduct described in your report that sellers and buyers were able to experiment to arrive at optimal strategies? A.... I know that Google’s conduct made experiments much more difficult to conduct to come up with optimal strategies. Q.... you describe Google’s conduct, in your opinion, made it more difficult to come up with optimal strategies.... what I’m asking is if you have any evidence that prior to the conduct that you analyze in your report sellers and buyers were able to experiment to arrive at optimal strategies ... A. My report talks about the conducts that make experiments more difficult. I don’t opine on anything that happened outside of, you know, like, way before any of these conducts.”), 81:24-82:4 (“Q. You testified earlier ... you don’t opine on anything that happened outside of way before any of these conducts; do you recall that? A. Right, I don’t discuss anything that happened way before any of these conducts.”); *see also id.* at 93:5-6, 98:10-16, 99:5-10.

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intelligence,” Ex. 40 (Rudin Depo. Tr.) at 48:20-22—through the blanket, unproven, and prejudicial assertion that “more data is better,” without any concrete analysis to apply that claim to the ad tech industry.

Even with vigorous cross-examination, Professor Rudin’s opinions on this subject matter—offered under the cloak of machine learning “expertise,” despite the lack of substantiation—would still raise a high risk of misleading or confusing the jury to mistakenly accept her conclusions at face-value, thus prejudicing Google based on preconceived notions among the public about the general impacts of possessing large amounts of data. In similar situations, courts have recognized this risk and exercised the gatekeeping function under Rule 702 and Rule 403 to protect the jury from being misled or confused by unreliable and prejudicial expert testimony, and the Court should do the same here. *See Daubert*, 509 U.S. at 595 (“[A] judge assessing a proffer of expert scientific testimony under Rule 702 should also be mindful of other applicable rules....Rule 403 permits the exclusion of relevant evidence ‘if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury.’”); *see also id.* (explaining that expert evidence can be “quite misleading because of the difficulty in evaluating it” and therefore the judge “exercises more control over experts than over lay witnesses” under Rule 403); *In re: Taxotere (Docetaxel) Prod. Liab. Litig.*, 26 F.4th 256, 268 (5th Cir. 2022) (citing Rule 702 to exclude improper expert testimony and “protect juries from unreliable and irrelevant expert testimony”); *United States v. Schmidt*, 711 F.2d 595, 598-99 (5th Cir. 1983) (explaining that expert testimony may be excluded under Rule 403 if it would confuse or mislead the trier of fact); *Valador, Inc. v. HTC Corp.*, 242 F. Supp. 3d 448, 456 (E.D. Va. 2017) (under Rule 702, courts have an essential gatekeeping role “because juries are often unequipped to discern flaws in an expert’s methods or findings. Even a rigorous cross-examination may be

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inadequate to ensure that a jury looks behind the veneer of expertise and affords the testimony what weight it deserves.”).

**IX. Professor Somayaji’s Opinions Are Unreliable and Irrelevant And, If Not Stricken As Improper Rebuttal, Should Be Excluded In Their Entirety Under Rule 702 As Inadmissible Ipse Dixit And Under Rules 401, 402, And 403**

Plaintiffs proffer Professor Anil Somayaji as a so-called rebuttal witness, purportedly to respond to the straightforward opinion of Google’s expert Dr. Paul Milgrom that advertisers and publishers can experiment to better accomplish their business goals, such as advertisers seeking increased return on ad spend or publishers looking for greater ad revenue. Instead of responding to Dr. Milgrom’s actual opinions by using the testimony, documents, data, or behavior of actual advertisers or publishers (or the testimony of any expert in the ad tech industry), Professor Somayaji adopts a tendentious construction of Dr. Milgrom’s report in an effort to shoehorn in his affirmative opinions about Google’s purported information advantages into the case.<sup>99</sup> To attack the strawman he created, Professor Somayaji offers an entirely theoretical opinion that purported differences in the information that Google shares with its own buying tools versus third-party buying tools somehow prevent the experimentation that Dr. Milgrom describes. Critically, Dr. Somayaji does not identify a single advertiser or publisher that was, in fact, unable to experiment as he theorizes.<sup>100</sup>

Professor Somayaji’s opinion is flawed in two fundamental respects. First, his underlying methodology for concluding that Google has “an information advantage over all other parties

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<sup>99</sup> On September 20, 2024, Google filed a motion to strike Professor Somayaji’s opinions as improper rebuttal. *See* ECF No. 613 (Motion); ECF No. 628 (Reply). Google reserves its right to renew that motion at trial, if necessary, after Dr. Milgrom testifies.

<sup>100</sup> By contrast, Dr. Milgrom’s Report cites record evidence demonstrating the ability of advertisers, publishers, and buying tools to experiment. *See, e.g.,* Ex. 44 (Milgrom Rpt.) ¶ 32; *see also, e.g.,* Ex. 45 ( [REDACTED] ) 60:11-16 (“ [REDACTED] )

); Ex. 46 ( [REDACTED] )

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participating in the Google ad ecosystem,” Ex. 43 (Somayaji Rpt.) ¶ 14, is to compare purported differences in the amount of information provided by one of many sources—Google’s ad exchange (“AdX”)—with no attempt to analyze the relevance of the information at issue or account for information available from all other sources. Professor Somayaji himself recognizes that is a questionable approach to measuring the “information imbalance” between two parties.

Second, and even more significantly, even if one were to assume *arguendo* that such an information advantage exists, Professor Somayaji offers neither a theoretical explanation for why it would prevent advertisers or publishers from experimenting, nor any empirical evidence whatsoever that it did in fact prevent such experimentation (despite the alleged advantage having existed for years). Professor Somayaji concedes he is not an expert in advertising or ad tech and that he did not even *attempt* to analyze whether the purported theoretical difference in information had any actual effect on *any* advertiser or publisher. But, even had he attempted such an analysis, it would have been outside the scope of his expertise.

Professor Somayaji’s opinions—offering “nothing more than unsupported conclusions” that “it is so”—are therefore inadmissible *ipse dixit*. *Boyd*, 158 F.3d at 331; *Hathaway*, 507 F.3d at 318. They should be excluded in their entirety as unreliable under Federal Rule of Evidence 702 and *Daubert* and irrelevant under Federal Rules of Evidence 401, 402, and 403.

**A. Summary Of Professor Somayaji’s Opinions**

Professor Somayaji opines that AdX shares more information with Google buying tools than it does with third-party buying tools. Ex. 43 (Somayaji Rpt.) ¶¶ 30, 33. Based on that relatively simple (but, as discussed below, questionable) foundation, he then offers opinions on a number of

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) 78:14-78:18 (

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increasingly broad, but unsupported, implications: (1) that Google maintains an information advantage “over *all* other parties participating in the Google ad ecosystem,” *id.* ¶ 14; (2) that “[t]his information imbalance between Google and non-Google participants impacts which ads are displayed, where they are shown, and the price that is paid for them,” *id.*; (3) that, as a result of such imbalance, advertisers and publishers cannot effectively experiment with their use of Google’s ad tech tools to improve their returns, Ex. 42 (Somayaji Depo. Tr.) 111:5-11; and (4) that they similarly cannot, as a result of the imbalance, understand or react to changes Google implements in the internal operations of its systems, Ex. 43 (Somayaji Rpt.) ¶ 21.

But, as detailed below, each of those implications is pure conjecture, as nowhere does Professor Somayaji explain—let alone demonstrate—any actual impact from the alleged “information imbalance” he purports to find.<sup>101</sup> Those opinions are therefore inadmissible. *Hathaway*, 507 F.3d at 318 (courts should not admit “unsupported conjectures”).

**B. Professor Somayaji Does Not Offer a Reliable Methodology For Establishing Google’s Alleged “Information Advantage”**

Underlying all of Professor Somayaji’s conclusions is the assertion that Google “maintains an information advantage over all other parties participating in the Google ad ecosystem.” Ex. 43 (Somayaji Rpt.) ¶ 14. Yet even that ostensibly simple statement conceals several unexamined and unsupported assumptions that undermine his analysis and the conclusions that flow from it.

As explained in his report and deposition, Professor Somayaji identified Google’s supposed “information advantage” by comparing the “request-level information that is passed [by

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<sup>101</sup> Ex. 42 (Somayaji Depo. Tr.) 173:4-7 (“Connecting information advantage or disadvantage to particular concrete economic outcomes is outside the scope of my report.”).

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AdX] to third-party buyers versus Google's first-party buying tools."<sup>102,103</sup> [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Ex. 43 (Somayaji Rpt.) ¶

33. But that claim (even if true) does not provide reliable support for his opinion on Google's purported "information advantage" because, as Professor Somayaji himself puts it, "the relevant question is not how much information one party has versus the other party," but "whether the information is relevant to the decision being made."<sup>104</sup> Professor Somayaji conceded that he had not even *attempted* to analyze whether particular fields were relevant to any ad buying or experimentation strategies, or which information fields were even used by any advertisers,

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<sup>102</sup> Ex. 43 (Somayaji Rpt.) ¶ 24. [REDACTED]

[REDACTED]

Ex. 42 (Somayaji Depo. Tr.) 152:9-

20; 224:16-225:2.

<sup>103</sup> To be clear, Professor Somayaji's report only discusses ad buying tools and does not contain any discussion whatsoever of any alleged "information imbalance" vis-a-vis any other auction participants. He thus cannot opine at trial, as part of his opinion that "Google maintains an information advantage over all other parties participating in the Google ad ecosystem," Ex. 43 (Somayaji Rpt.) ¶ 14, that any *other* auction participants beyond buying tools were somehow disadvantaged.

<sup>104</sup> Ex. 42 (Somayaji Depo. Tr.) 198:21-199:3 ("When we talk about some parties having differing information about the scenario than other parties, the relevant question is not how much information one party has versus the other party. It's really about whether the information is relevant to the decision to be made."); *id.* at 200:25-201:3 ("So when we talk about information advantage, it's not about absolute information. It's about whether you have the right information."); *id.* at 244:7-13 ("Q. And you testified earlier that it's not simply the amount of information that's relevant but the quality of that information and how material it is to the request at hand, correct? A. It does matter the quality and relevance, yes.").



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publishers, or buying tools.<sup>105</sup> Indeed, having disclaimed any relevant expertise in the ad tech industry or the behavior of advertisers or publishers, it is unclear how Professor Somayaji *could have* formed an opinion as to the relative value of the information fields in the two different bid requests, had he even tried.<sup>106</sup>

Professor Somayaji also entirely ignored other factors that would have mitigated any supposed “information advantage.” Most significantly, he conceded in his deposition that he did

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<sup>105</sup> Ex. 42 (Somayaji Depo. Tr.) 240:19-21 (“I didn’t do a detailed impact analysis of precisely which fields are used and precisely which parts of [TargetingRequest.]”); *id.* at 244:1-6 (“Q. But you do not do any analysis of how specific fields are being used? A. I did not analysis [sic] how specific fields of -- how most of the specific fields of TargetingRequest for use inside CAT2 Mixer beyond how it was passed along to components.”).

<sup>106</sup> Ex. 42 (Somayaji Depo. Tr.) 25:22-26:7 (“Q. So you would say that you have expertise in the various technologies that underlie how the system works but not necessarily in the business logic of how to operate that business or why are we doing the things in particular in that business; is that correct? A. I agree that my expertise in -- is in how the ads would be served and not in the business-logic aspect of the actual decisions.”); *id.* at 92:11-93:5 (“Q. Did you speak with any advertisers or publishers or their employees in the course of developing your opinions in this case? A. I have not. Q. Did you speak with or interview anyone who is knowledgeable about the operation or development of ad tech tools as part of your work in preparing for this case? A. I did not interview anyone who is knowledgeable about the operation or development of ad tech tools as part of my work in preparing for this case. Q. Did you conduct any interviews as part of your work in preparation of this case? A. I did not conduct any interviews as part of preparation for this case.”); Ex. 43 (Somayaji Rpt.) Appendix A (showing no reliance on advertiser or publisher documents, testimony, or data).

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not consider the information actually available to third-party tools, such as the information they could generate on their own or could obtain from sources other than Google.<sup>107,108</sup>

If, as Professor Somayaji claims, “information imbalance” is a meaningful concept intended to assess whether “different parties *possess* different knowledge or amounts of knowledge in the context of any given ad auction,” Ex. 43 (Somayaji Rpt.) ¶ 21, then what matters is the knowledge or information parties actually have from all sources—not simply the information they obtained from a particular source. But even if one were to focus only on information originating from Google’s ad exchange, a reliable methodology would apply the same narrower rule to the

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<sup>107</sup> Ex. 42 (Somayaji Depo. Tr.) 268:16-269:18 (“Q. Did you investigate the types or amounts of data that third-party buying tools have available to them? ... A. I analyzed the data that was made available to RTB participants in the BidRequest. Q. So you analyzed the data by Google. Did you conduct any analysis of the total amounts of information that is available to them from all sources? A. I did not conduct any analysis outside the bounds of Google source code and the associate[d] documentation. Q. So you have no opinion as to whether or not non-Google buying tools have data that is equivalent to the information that you allege is being fed into Google's machine learning models, did you? A. In my report, I did not offer an opinion in the information available to third-party tools outside of the data that is given to them through BidRequest.”); *id.* at 273:20-274:19 (“Q. And you also did not offer an opinion as to whether or not those third-parties could obtain equivalent data from other sources other than Google, correct? A. I do not offer an opinion on an ability of third parties to obtain such information.”).

<sup>108</sup> For example, non-Google buying tools maintain audience segments consisting of internet users with particular characteristics that they use to target advertisements (just as Google Ads does). *See, e.g.,* Ex. 47 ( [REDACTED] ) 114:14-24 (“ [REDACTED] ”); Ex. 48 (The Trade Desk, *Unified ID 2.0*) at 3; Ex. 49 (Amazon Ads, *Audiences*); Ex. 50 (Adform, *Introducing the New Audience Marketplace*). But because that information about a user’s interests is inferred by the buying tool, rather than being passed to it by Google, Professor Somayaji does not include it in his assessment of the alleged information imbalance between Google and non-Google buying tools. Ex. 42 (Somayaji Depo Tr.) 273:16-19 (“I do not offer an opinion on how information is available or what information is available to third parties from other sources.”). On the other side of the ledger, however, Professor Somayaji assumes that all of the information available to Google’s buying tools should be included in the analysis, even if directly parallel to types of data he ignored in the case of non-Google buying tools. Ex. 43 (Somayaji Rpt.) ¶¶ 40-42 ( [REDACTED] ”).



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information used by Google’s buying tools (and thus ignore, for example, information that Google Ads developed on its own). Ignoring those alternative sources and applying different standards to Google and non-Google buying tools highlights the unreliability of Professor Somayaji’s opinions and does not reflect the “intellectual rigor that characterizes the practice of an expert in the relevant field.” *Pipitone*, 288 F.3d at 244.

**C. Professor Somayaji Did Not Even Attempt to Determine Whether The Purported Information Advantage Had Any Impact, Rendering His Opinions Unreliable And Irrelevant**

Even assuming, *arguendo*, that Google’s buying tools have an “information advantage” over non-Google buying tools, Professor Somayaji’s opinions about the implications of such purported advantage lack a factual or theoretical basis and are thus inadmissible under Rule 702. Despite recognizing that “it is completely feasible to determine the impact of [Google’s alleged information advantage],”<sup>109</sup> Professor Somayaji never attempted to do so. He does not even attempt to show that any additional information Google may have possessed made *any* difference to the number of auctions that were won by its advertiser customers, the prices paid by advertisers (or earned by publishers), the advertisements shown, or the ability of advertisers and publishers to experiment to improve their performance or understand the operation of Google’s auctions—further warranting exclusion under Rules 401, 402, and 403.<sup>110</sup> That Google’s ad-buying tools may

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<sup>109</sup> Ex. 42 (Somayaji Depo. Tr.) 248:24-249:11 (“Q. So do you believe it’s not feasible to assess the materiality of alleged information advantage that is this complex? A. It is my opinion it is completely feasible to determine the impact of this, but the impact you would find would not be at a level of looking at particular features and looking at code, but looking at the overall performance of the system in an economic context because that’s where the information advantage would manifest in economic decisions, which is outside the scope of my report.”).

<sup>110</sup> Ex. 42 (Somayaji Depo. Tr.) 235:16-236:23 (“Q. [W]here you write that, quote, ‘This information imbalance between Google and non-Google participants impacts which ads are displayed, where they are shown, and the price that is paid for them.’ ... How does the information imbalance that you described in your report describe how ads are displayed? ... A. [REDACTED]”).

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have received additional information from AdX that *may or may not have had any impact on any auctions* is irrelevant to whether Google violated antitrust law or consumer protection statutes.

*Impact on Price and Advertisements:* Professor Somayaji opines that Google’s purported “information advantage over all other parties participating in the Google ad ecosystem ... impacts which ads are displayed, where they are shown, and the price that is paid for them.” Ex. 43 (Somayaji Rpt.) ¶ 14. But to be admissible, Professor Somayaji must use a reliable methodology to show how that conclusion follows from the purported information advantage. *See Hathaway*, 507 F.3d at 318. Instead, Professor Somayaji expressly and repeatedly disclaimed in his deposition that his report was intended to contain *any* analysis of how Google’s purported information advantage impacted advertisers, publishers, or the selection of which ads were shown to users.<sup>111</sup> Because “[c]onnecting information advantage or disadvantage to concrete economic outcomes” is, by his own admission, “outside the scope of [his] report,” Ex. 42 (Somayaji Depo. Tr.) 173:4-7, and because he has not otherwise substantiated his opinions with any documents, data, or other information from advertisers or publishers (or any other probative evidence of actual impact),<sup>112</sup>

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[REDACTED]. *I do not offer opinion in how that information advantage manifests into specific economic consequences ....*”).

<sup>111</sup> *See, e.g.*, Ex. 42 (Somayaji Depo. Tr.) 181:15-16 (“I have not offered an opinion on advantages or disadvantages [to publishers] per se.”); *id.* at 181:21-23 (“I do not offer an opinion for advertisers -- the advantage for advertisers either.”); *id.* at 238:12-13 (“I do not offer an opinion on the quantification of that impact [of alleged imbalance between Google and non-Google participants].”); *id.* at 236:4-236:11 (“[T]he specific impact on which ads are chosen, that is outside the scope of my analysis[.]”).

<sup>112</sup> Ex. 43 (Somayaji Rpt.) Appx. A (showing no reliance on third-party deposition transcripts, documents, or data); Ex. 42 (Somayaji Depo. Tr.) 76:1-11 (if no deposition transcripts are listed in his Appendix A, that indicates he did not review them); *id.* at 78:20-79:22 (Somayaji had access to depositions and third-party data productions but relied solely on “the documents produced by Google and some public sources”); *id.* at 79:23-80:9 (“Q. But none of the documents that were produced in this case pursuant to subpoenas by third parties other than Google are documents relied on this case; is that correct? A. Not to my knowledge. Q. And you did not rely on any deposition transcripts in preparing your opinions; is that correct? A. No.”).

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Professor Somayaji has not provided a reliable methodology for this Court (or anyone else) to test whether the information advantage *could have* or *ever has* affected auction outcomes. *Hathaway*, 507 F.3d at 318 (requiring “sufficient facts and a reliable methodology” for admissibility under Rule 702).

*Impact on Ability to Respond to Google’s Auction Changes*: Professor Somayaji’s opinion that Google’s information advantage prevents advertisers and publishers from understanding or reacting to changes in Google’s internal auction operation is also unsupported and unreliable. Beyond the bald assertion that Google’s systems are complicated and opaque,<sup>113</sup> Professor Somayaji does not even attempt to explain how Google’s alleged information advantage affects advertisers’ and publishers’ ability to understand the internal operation of Google’s systems, or that they even want or need such an understanding to be able to experiment to optimize their outcomes.<sup>114</sup>

And while Professor Somayaji claims to “understand Dr. Milgrom to be opining that advertisers and publishers can ‘know’ what Google does internally well enough to optimize their outcomes, or at least well enough to avoid unfavorable outcomes,” Ex. 43 (Somayaji Rpt.) ¶ 21, he admitted in his deposition that “Dr. Milgrom does not talk about the internal structure of Google systems and how they would be able to relate to the ability of market participants to make decisions,” Ex. 42 (Somayaji Depo. Tr.) 128:19-129:5. In fact, Dr. Milgrom says just the opposite

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<sup>113</sup> Ex. 42 (Somayaji Depo. Tr.) 140:23-25 (“I’m saying the environment in which these folks are operating is opaque in the extreme.”); *id.* at 265:1-7 ( [REDACTED] ).

<sup>114</sup> Ex. 42 (Somayaji Depo. Tr.) 252:14-20 (“Q. [A]re you aware of any evidence or record in this case suggesting that advertisers are interested in understanding the internal operation of Google’s models? A. I am not aware but I have not looked for such evidence.”).

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in his report, stating that “even for those programs for which details are not disclosed at all, advertisers’ and publishers’ routine data analysis and experimentation with bids and floor prices are typically sufficient for them to identify optimal strategies.” Ex. 44 (Milgrom Rpt.) ¶ 32.

Notably, the “information advantage” Professor Somayaji ascribes to Google’s buying tools is *not* knowledge regarding how Google’s systems and algorithms are designed and function, but rather additional information Google’s buying tools allegedly receive about the characteristics of individual impressions. *See* Ex. 43 (Somayaji Rpt.) Appx. C. However, nowhere in his report or his deposition testimony does Professor Somayaji even attempt to explain how a difference in knowledge about a specific available impression could have any impact whatsoever on a party’s ability to understand how Google’s internal auction systems operate. Indeed, Professor Somayaji points to no support for the proposition that advertisers or publishers seek to understand *the internal operations of Google’s systems* to be able to use them effectively, including through experimentation. Having failed to offer a reliable basis for believing his conclusions regarding parties’ ability to understand or respond to changes in Google’s auctions, Professor Somayaji’s opinions in that regard should be excluded under Rule 702.

*Impact on Customers’ Ability to Optimize:* Professor Somayaji claims that advertisers and publishers cannot optimize their behavior through experimentation to improve their outcomes due to Google’s ad buying tools receiving more information from AdX compared to third-party buyers. Ex. 43 (Somayaji Rpt.) ¶ 24. Yet Professor Somayaji does nothing to substantiate this claim: he admits that he did not analyze *any* documents, testimony, or data from advertisers or publishers,

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nor did he interview a single advertiser or publisher—or anyone else, for that matter—as to their experimentation or auction outcomes.<sup>115</sup>

Moreover, Professor Somayaji undermines his own premise, stating that the “heart” of optimization is that “it’s *always* possible to optimize a system simply through trial and error.”<sup>116</sup> By his own logic, advertisers and publishers *can* optimize their outcomes by experimenting, looking at an outcome, and experimenting again to get a different outcome. To give a simple example, if a publisher wants to test whether increasing its price floor will increase its revenue, it can test that hypothesis and then evaluate the results—all without knowing exactly how the auction operates or having the exact same information as every other publisher. Professor Somayaji concedes publishers can do exactly this sort of experimentation,<sup>117</sup> but claims doing so somehow does not constitute true “optimization” because “the search for better outcomes is compromised because of the lack of information.” Ex. 42 (Somayaji Depo. Tr.) 116:16-21.

At no point in his report or deposition testimony, however, does Professor Somayaji explain why this sort of experimentation does not constitute true “optimization” or ever demonstrate that any advertiser or publisher (let alone Dr. Milgrom, to whom he is purportedly

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<sup>115</sup> Ex. 43 (Somayaji Rpt.) Appx. A (showing no reliance on advertiser or publisher documents, testimony, or data); Ex. 42 (Somayaji Depo. Tr.) 92:11-93:5 (spoke with no “advertisers or publishers or their employees in the course of developing [his] opinions in this case”; “I did not interview anyone who is knowledgeable about the operation or development of ad tech tools as part of my work in preparing for this case”; “I did not conduct any interviews as part of preparation for this case.”).

<sup>116</sup> Ex. 42 (Somayaji Depo. Tr.) 110:2-10 (“This gets to [the] heart [of] what optimization means. So it’s *always* possible to optimize a system simply through trial and error. You try different things and you see what happens. And some of them will be better, and some are worse. If you just keep trying enough random things, eventually you might get to a better part of the space.”).

<sup>117</sup> Ex. 42 (Somayaji Depo. Tr.) 115:12-19 (“Q. Let’s assume a publisher is making \$100 from selling ad space on their website, and they run some experiments with change in their floor prices or other change in parameters system to try to see if they can get to \$110. Is that an example of optimizing or trying to optimize? A. That is an example.”).

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responding) shares that strained definition of “optimization.” Nor does he offer any other evidence suggesting that the alleged information imbalance he describes harms advertisers or publishers or prevents them from accomplishing their advertising strategies.<sup>118</sup> And, as explained above, Professor Somayaji repeatedly disclaimed any opinion about the economic effects of Google’s alleged information advantage or its actual impact on advertisers or publishers.

In light of Professor Somayaji’s admissions, his opinions are unsupported by any reliable methodology, irrelevant, and should be excluded in their entirety. *See Viterbo*, 826 F.2d at 422 (“If an opinion is fundamentally unsupported, then it offers no expert assistance to the jury.”).

**D. Even If Professor Somayaji Had Analyzed Impact, Such an Analysis Would Have Been Outside The Scope Of His Expertise**

As described above and conceded in his deposition,<sup>119</sup> Professor Somayaji did not analyze either the materiality of any piece of information supposedly shared only with Google’s buying tools or what the economic or other real-world implications of Google’s purported information advantage would have been—rendering his opinions not only unreliable but irrelevant and misleading. Even if, however, he had done such an analysis, the conclusions would go beyond the

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<sup>118</sup> He similarly does not consider the possibility that customers could *benefit* from Google’s purported information advantage by using Google’s ad tech tools, potentially alongside non-Google ad tech tools. *Id.* at 257:8-25 (“Q. You have not analyzed, have you, of the relative benefits to advertisers of using Google’s -- the development advantage per costs of using Google’s ad buying tools versus other ad buying tools, have you? A. My analysis in my report is about the source code. I do not have an analysis of other ad buying systems. Q. Or the cost or benefits of advertisers using Google’s tools versus not using Google’s tools? A. I wouldn’t be doing an economic analysis of such systems. I have not looked at the source code of such systems.”).

<sup>119</sup> Ex. 42 (Somayaji Depo. Tr.) 173:4-7 (“Connecting information advantage or disadvantage to concrete economic outcomes is outside the scope of my report.”); *id.* at 181:15-16 (“I have not offered an opinion on advantages or disadvantages [to publishers] per se.”); *id.* at 181:21-23 (“I do not offer an opinion for advertisers -- the advantage for advertisers either.”); *id.* at 223:17-22 (“My report discusses information advantage and its relationship to experiments participants in the market might perform to improve their [performance]. Beyond that, I do not discuss the effect on the economic actors.”); *id.* at 238:12-13 (“I do not offer an opinion on the quantification of that impact.”).

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scope of Professor Somayaji's expertise, as he conceded in his deposition that he is not an expert in economics, industrial organization, auction theory, game theory, market design, antitrust law, advertising, or marketing.<sup>120</sup> By Professor Somayaji's own admission, his opinions are offered solely as a computer scientist who examined a very narrow technical question: which information fields are contained in AdX's bid requests to Google's buying tools versus third-party buying tools, Ex. 43 (Somayaji Rpt.) Section IV, and whether Google uses some of those fields in its predictive models, *id.* Section V. He did no analysis whatsoever of the systems, practices, preferences, or actual performance of any advertisers, publishers, or any other participant in the ad tech ecosystem.<sup>121</sup> As such, he cannot testify about how any advertisers or publishers using tools other than Google's might have used particular information, how they might have reacted to or been affected by having (or not having) certain information, or any other implications of his theory. Nor have any of Plaintiffs' other experts relied on Professor Somayaji's work to offer such an opinion.

**E. Professor Somayaji's Source Code Analysis Underlying His Opinions Is Incomplete and Unreliable**

Ex. 43 (Somayaji Rpt.) ¶ 4,

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<sup>120</sup> Ex. 42 (Somayaji Depo. Tr.) 21:15-26:7.

<sup>121</sup> Ex. 42 (Somayaji Depo. Tr.) 257:8-25 ("Q. You have not analyzed, have you, of the relative benefits to advertisers of using Google's -- the development advantage per costs of using Google's ad buying tools versus other ad buying tools, have you? A. My analysis in my report is about the source code. I do not have an analysis of other ad buying systems. Q. Or the cost or benefits of advertisers using Google's tools versus not using Google's tools? A. I wouldn't be doing an economic analysis of such systems. I have not looked at the source code of such systems."); *id.* at 88:4-8 ("Q. Did you as part of your work on this case analyze any software systems that interact with Google system other than Google system itself? A. My review was limited to the source code, the Google source code.").



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[REDACTED] As described above, Professor Somayaji concedes that simply comparing the number of fields in each of those files (in his words, “how much information”) is not a reliable means of establishing an information *advantage* because what “really” matters is “whether the information is relevant to the to be being made.” Ex. 42 (Somayaji Depo. Tr.) 198:21-199:3.

However, he did not even reliably establish that the two files he analyzed are actually representative of the information shared with Google and non-Google buying tools in the first place. For example, nowhere in his report or testimony does Professor Somayaji describe source code showing that the data structures he examined are actually, directly or indirectly, shared with anyone (let alone that one is shared with non-Google buying tools and the other is shared only with Google buying tools), or otherwise show that the data that is actually shared with Google and non-Google buying tools corresponds to the fields in the files he compared. Instead, he simply “assume[d]” based on the similarity of certain names that he was looking at the correct file, Ex. 42 (Somayaji Depo. Tr.) 314:11-315:8, and, when asked at his deposition about the possibility that there were in fact multiple files with such names that serve different purposes within Google’s systems, he conceded that was “certainly a possibility,” *id.* 313:7-20, and that “previous to this, [he hadn’t] noticed th[e] issue,” *id.* 315:4-8.

To be clear, the Court does not need to ultimately resolve this question to assess the admissibility of Professor Somayaji’s testimony under Rule 702. Even if Professor Somayaji’s assumption were correct (which he has not established), the fact that he was relying on an assumption rather than demonstrating from the extensive source code made available to him that he had the correct file further highlights the unreliability of his methodology. *See Pipitone*, 288 F.3d at 244 (Courts must “make certain that an expert, whether basing testimony upon professional



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studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.”). Absent a reliable methodology,

Professor Somayaji’s opinion [REDACTED]

[REDACTED] should be excluded from this case, along with each of his other opinions that depend on that result.

Accordingly, there are multiple independent flaws in Professor Somayaji’s analysis that all lead to the same conclusion: his opinions are unreliable, overly theoretical, untethered from the actual facts and claims in this case, and would serve no purpose other than to mislead the jury. As such, the Court should exclude them in their entirety under Rules 401, 402, 403, and 702.

**X. Several Of Professor Gans’ Opinions Should Be Excluded.**

Plaintiffs’ expert economist, Professor Joshua D. Gans, offers three specific opinions that go beyond the bounds established by Rule 702. First, his opinions that there are relevant markets for small advertiser buying tools and large advertiser buying tools are based on unreliable applications of the Hypothetical Monopolist test and what are referred to as the *Brown Shoe* factors. Second, due to a series of miscalculations, Professor Gans’ opinions about AdX’s market share are improperly inflated and likely to mislead the finder of fact. Third, Professor Gans repeatedly opines about Google’s motive and intentions, a subject well outside his expertise as an economist. All of these opinions should be excluded for the reasons described further below.

**A. Professor Gans Did Not Reliably Apply Standard Methodologies for Defining Ad Buying Tools Markets.**

Professor Gans’ opinions that there are relevant antitrust markets for small advertisers used for buying display advertising space (“small advertiser buying tools”) and ad buying tools for large advertisers for buying open web display advertising space (“large advertiser buying tools”) should

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be excluded because he did not reliably apply any methodology for defining antitrust markets.<sup>122</sup> See Fed. R. Evid. 702(d) (requiring “reliable application of the principles and methods to the facts of the case”). Although Professor Gans uses two standard “approaches” to define markets—the Hypothetical Monopolist Test and the *Brown Shoe* factors, see Ex. 52 (Gans Rpt.) ¶¶ 127-128—he does not apply either approach properly when he tries to define markets for small advertiser buying tools and large advertiser buying tools. As a result, his opinions about those market definitions are unreliable and should be excluded. See *Moore*, 151 F.3d at 278 n.10 (“Under *Daubert*, ‘any step that renders the analysis unreliable ... renders the expert’s testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology.’”); *Prepaid Wireless Servs., Inc. v. Sw. Bell Wireless, Inc.*, 2002 WL 34367328, at \*3 (S.D. Tex. July 23, 2002) (excluding expert’s testimony because the “indicat[ion] that he (at the least) misapplied his methodology” made it “sufficient to render [his] testimony inadmissible”).

**1. Professor Gans Misapplied the Hypothetical Monopolist Test In Attempting To Define Ad Buying Tool Markets.**

Professor Gans purports to use the Hypothetical Monopolist Test (“HMT”) to define markets for small advertiser buying tools (which include Google Ads) and large advertiser buying tools (which include DV360), but he misapplies that methodology by focusing exclusively on small advertisers, while ignoring the large advertisers that account for most display advertising spending. The HMT analyzes whether a candidate market should be accepted as a relevant antitrust market by asking whether a hypothetical monopolist of the products in that market could profitably

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<sup>122</sup> Google maintains there is one, two-sided market, consistent with the United States Supreme Court decision in *Ohio v. American Express Co.*, 585 U.S. 529, 546 (2018). For purposes of this Motion, however, Google takes issue only with the way in which Professor Gans applied his methodologies for defining his alleged markets. Google reserves all rights to challenge Plaintiffs’ market definitions on these and other grounds in future motions and/or at trial.

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impose a small but significant and non-transitory increase in price (“SSNIP”), typically 5%, above a competitive baseline. Department of Justice & Federal Trade Commission, *Merger Guidelines*, § 4.3.B (Dec. 18, 2023) (“Merger Guidelines”). If so many customers would switch to products outside of the candidate market in response to a SSNIP that a hypothetical monopolist *could not* profit from such a price increase, then the candidate market is too narrow for antitrust purposes and “fails” the HMT. On the other hand, the candidate market “passes” the HMT if a hypothetical monopolist *could* profitably impose a SSNIP because so few customers would switch to products outside of the candidate market in response to that price increase. *Id.* § 4.3.C; *see also, e.g., Epic Games, Inc. v. Apple, Inc.*, 67 F.4th 946, 975 (9th Cir. 2023); *In re Se. Milk Antitrust Litig.*, 739 F.3d 262, 277-78 (6th Cir. 2014); *FTC v. Whole Foods Mkt., Inc.*, 548 F.3d 1028, 1037-38 (D.C. Cir. 2008).

Critically, the HMT focuses on whether *enough* customers would switch to products outside of the candidate market to render a SSNIP unprofitable. If the hypothetical monopolist would lose so much business from one group of customers (“marginal” customers) switching in response to a SSNIP that it would be unprofitable to raise prices, then all of the other customers (“inframarginal” customers) would be protected, even if the SSNIP would not lead any of them to switch. *See United States v. Sabre Corp.*, 452 F. Supp. 3d 97, 142 (D. Del. 2020) (“[T]he test for a relevant product market is whether the ‘commodities [are] reasonably interchangeable by consumers for the same purposes’ – not whether it is feasible to convert all users to only one of those commodities.”), *order vacated by* 2020 WL 4915824 (3d Cir. July 20, 2020) (vacating on mootness grounds alone and holding “this Order should not be construed as detracting from the persuasive force of the District Court's decision”); *FTC v. Arch Coal, Inc.*, 329 F. Supp. 2d 109, 122 (D.D.C. 2004) (explaining that market definition “must consider the degree to which buyers

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treat the products as interchangeable, but need not find that *all* buyers will substitute one commodity for another”).

Professor Gans failed to apply these principles in defining a market for small advertiser buying tools. Even though he agreed that sellers of those tools “would have to consider” the “potential responses from both small advertisers and large advertisers” to an increase in price, Ex. 51 (Gans Depo. Tr.) 86:10-17, Professor Gans did not analyze “whether large advertisers would shift enough spending from ad-buying tools for small advertisers to ad-buying tools for large advertisers to make it unprofitable for a hypothetical monopolist of ad-buying tools for small advertisers to impose a SSNIP,” *id.* at 87:19-88:2. That failure is especially significant because, as Professor Gans recognizes, large advertisers make up a “reasonable proportion” of total spending on small advertiser buying tools, *id.* at 84:6-11, and his Opening Report even highlights evidence that [REDACTED]

[REDACTED]. Ex. 52 (Gans Rpt.) ¶ 267 fig. 8; Ex. 51 (Gans Depo. Tr.) 85:24-86:3; *see also* Ex. 54 (Baye Rpt.) ¶¶ 232, 234, fig. 18 ([REDACTED] [REDACTED]). Because large advertisers make up a large portion of spending on small advertiser buying tools, their responses to a SSNIP likely would play an outsized role in whether a hypothetical monopolist would find it profitable to impose a SSNIP.

Yet Professor Gans did not consider large advertisers’ responses at all when applying the HMT to his candidate market for small advertiser buying tools. Ex. 51 (Gans Depo. Tr.) 87:19-88:2; Ex. 52 (Gans Rpt.) ¶¶ 237-239. **First**, Professor Gans asserted that small advertisers would not “stop display advertising campaigns and switch over to other types of advertising” because they “especially rely on display advertising,” Ex. 52 (Gans Rpt.) ¶ 237, without considering large

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advertisers' potential responses, Ex. 51 (Gans Depo. Tr.) 83:19-84:5. **Second** and **third**, Professor Gans concluded that transacting directly with publishers and building in-house buying tools are “out of reach for most smaller advertisers,” Ex. 52 (Gans Rpt.) ¶ 238, overlooking large advertisers, which Professor Gans concedes have “greater resources than small advertisers,” *id.* ¶ 400. **Fourth**, Professor Gans opined that small advertisers would not switch to large advertiser buying tools because those tools “often have minimum spend requirements that smaller advertisers are unable to meet,” *Id.* ¶ 239, again neglecting the potential response of large advertisers, which could obviously substitute to *large advertiser* buying tools. *Id.* ¶ 285. Considering responses of only a subset of customers (as Professor Gans does) is not a reliable application of the HMT and cannot lead to reliable conclusions. Ex. 54 (Baye Rpt.) ¶¶ 263-265; *see Ky. Speedway, LLC v. Nat’l Ass’n of Stock Car Auto Racing, Inc.*, 588 F.3d 908, 918 (6th Cir. 2009) (affirming exclusion of opinion of expert who “did not perform the standard SSNIP test”); *Allen v. Dairy Mktg. Servs., LLC*, 2013 WL 6909953, at \*5-9 (D. Vt. Dec. 31, 2013) (excluding expert for misapplying SSNIP test).

Even when defining his market for *large advertiser* buying tools, Professor Gans never considers how large advertisers would respond to a SSNIP; he simply relies on the same analysis that he used to try to define a market for small advertiser buying tools. Ex. 52 (Gans Rpt.) ¶ 288 (“My analysis regarding small advertiser ad buy tools applies equally here.”). But as described above, that analysis focuses exclusively on responses of small advertisers. And those responses are irrelevant to defining a market for large advertiser buying tools because, as Professor Gans recognizes, small advertisers do not use large advertiser buying tools in the first place, *see id.* ¶ 239, meaning that a SSNIP would not cause a hypothetical monopolist of large advertiser buying tools to lose *any* sales from small advertisers.

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**2. Professor Gans Misapplied the *Brown Shoe* Factors In Attempting To Define Ad Buying Tool Markets.**

In addition to the HMT, Professor Gans also seeks to ground his opinions about the existence of relevant markets for small advertiser buying tools and large advertiser buying tools on just three of the seven so-called *Brown Shoe* factors: (1) peculiar characteristics and uses; (2) industry recognition; and (3) distinct pricing.<sup>123</sup> Ex. 52 (Gans Rpt.) ¶¶ 232-236. Because he misapplies each of these factors, Professor Gans has failed to reliably apply the *Brown Shoe* methodology (as he failed to reliably apply the HMT), and his opinions about there being relevant markets for small advertiser buying tools and large advertiser buying tools should be stricken.

**First**, in assessing the “peculiar characteristics and uses” factor, Professor Gans describes small advertiser buying tools as “connecting with exchanges and sellers of ad inventory, optimizing demographic and cross device targeting, managing advertising campaigns and remarketing campaigns, [and] collecting data on campaigns’ performance, etc.” *Id.* ¶ 225. But that factor cannot support a distinct market for small advertiser buying tools because Professor Gans concedes that large advertiser buying tools also perform each and every one of those same functions. Ex. 51 (Gans Depo. Tr.) 78:1-13.

**Second**, Professor Gans asserts that there is “industry or public recognition” of a relevant market for small advertiser buying tools. Ex. 52 (Gans Rpt.) ¶¶ 233-34. But the “only basis” for his opinion was one conversation with Professor Chandler, Ex. 51 (Gans Depo. Tr.) 78:17-79:2, in which Professor Chandler said that “small advertisers were defined by having a relatively small amount of monthly advertising, and that one reason they are a distinct market is that they have too

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<sup>123</sup> In *Brown Shoe Co. v. United States*, the Supreme Court identified seven factors that may be evaluated in defining a relevant antitrust market: “[1] industry or public recognition of the submarket as a separate economic entity, [2] the product’s peculiar characteristics and uses, [3] unique production facilities, [4] distinct customers, [5] distinct prices, [6] sensitivity to price changes, and [7] specialized vendors.” 370 U.S. 294, 325 (1962).

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little advertising expenditure to access some of the more sophisticated products that are available that may have different substantive degrees of – of pricing for – to advertisers for the use of those products.” *Id.* 80:19-81:4. In other words, while Professor Chandler may have described how *he thinks* about small advertisers, he did not provide any basis for Professor Gans to conclude that the *industry recognizes* small advertiser buying tools as distinct from large advertiser buying tools.<sup>124</sup> Because there is “too great an analytical gap” between what Professor Chandler said and the conclusions Professor Gans reached about industry or public recognition of a relevant market for small advertiser buying tools, Professor Gans’ opinion is “ipse dixit” and should be excluded. *See Gen. Elec. Co.*, 522 U.S. at 146; *see also Emigra Grp., LLC v. Fragomen, Del Rey, Bernsen & Loewy, LLP*, 612 F.Supp.2d 330, 356 (S.D.N.Y. 2009) (rejecting proffered evidence of “industry or public recognition” that did not evaluate opinions of industry participants).

**Third**, Professor Gans asserts that small advertiser buying tools have a “distinct and independent price structure” based only on the fact that they often charge advertisers on a cost-per-click (CPC) basis, without comparing the pricing of those tools to large advertiser buying tools or anything else. Ex. 52 (Gans Rpt.) ¶¶ 235-236. Professor Gans may have neglected to compare prices because he understands *Brown Shoe*’s “distinct pricing” factor to mean that “if [customers] do not consume the product, they do not pay that price.” Ex. 51 (Gans Depo. Tr.) 33:21-23. But there is nothing “distinct” about consumers paying for a product only when they consume it; that is how prices usually work. Contrary to Professor Gans’ interpretation, courts consider a product to have “distinct pricing”—in a way that suggests that the product belongs in its own, separate antitrust market—if the prices are sufficiently different from those of other products that might be

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<sup>124</sup> Further illustrating the gap between Plaintiffs’ experts, Professor Gans believes [REDACTED], while Professor Chandler disagrees. *Compare* Ex. 52 (Gans Rpt.) ¶ 229 *with* Ex. 28 (Chandler Depo. Tr.) 143:8-15.

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considered part of the same market. *See Whole Foods*, 548 F.3d at 1032 (distinguishing pricing for “premium, natural, and organic supermarkets” and other supermarkets); *FTC v. Tapestry, Inc.*, 2024 WL 4647809, at \*18-19 (S.D.N.Y. Nov. 1, 2024) (distinguishing pricing for “accessible-luxury handbags” and other handbags); *United States v. Bertelsmann SE & Co.*, 646 F.Supp.3d 1, 28-29 (D.D.C. 2022) (distinguishing pricing for publication rights to anticipated top-selling books and other books). Professor Gans never performed such a comparison.

As Professor Gans did not reliably apply any of the *Brown Shoe* factors (or the HMT) when attempting to define a market for small advertiser buying tools, his opinions about that market definition should be excluded. Likewise, his opinions about the existence of a market for large advertiser buying tools should be excluded because they are based on “the same approaches (e.g., *Brown Shoe* and HMT)” and “the same reasons” as his opinions about the market for small advertiser buying tools. Ex. 52 (Gans Rpt.) ¶ 288.

**B. Professor Gans Miscalculated AdX’s Market Share.**

Professor Gans recognizes that the proper way to calculate an ad exchange’s market share is to divide the number of impressions transacted by that ad exchange (the “numerator”) by the total number of impressions transacted by all ad exchanges operating in the relevant market (the “denominator”). *See, e.g.*, Ex. 52 (Gans Rpt.) 126 tbl.5 n.428. Despite his attempts to apply that methodology, Professor Gans’ calculations of AdX’s market share improperly add Open Bidding transactions to the numerator (even though those transactions did not occur on AdX) and/or entirely omit impressions transacted on other ad exchanges from the denominator. These failures to perform reliable calculations lead Professor Gans to dramatically overstate AdX’s market share in ways that would serve only to confuse and mislead the jury if they are not excluded. *See Prepaid Wireless*, 2002 WL 34367328, at \*3 (excluding opinion because the expert’s “omissions and failure to account for admittedly relevant data and factors, indicates that he (at the least) misapplied



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his methodology”); *see also Moore*, 151 F.3d at 278 n.10 (“Under *Daubert*, ‘any step that renders the analysis unreliable ... renders the expert’s testimony inadmissible. This is true whether the step completely changes a reliable methodology or merely misapplies that methodology.”); *see generally* 1 McCormick On Evid. § 15 (8th ed.) (“A misapplication of [expert] methodology can result in a flawed [expert] conclusion.”).

**1. Professor Gans’ Opening Report Incorrectly Attributes Open Bidding Impressions to Adx.**

In his Opening Report, Professor Gans calculated that [REDACTED]

[REDACTED]. Ex. 52 (Gans Rpt.) ¶ 372 & tbl.5 & n.428; Ex. 53 (Gans Rebuttal Rpt.) ¶¶ 233, 434 & fig.24. To arrive at these figures, Professor Gans attributed to AdX certain impressions identified in the data as “EBDA” transactions. Ex. 52 (Gans Rpt.) 126 tbl.5 n.428; Ex. 51 (Gans Depo. Tr.) 123:14-19. That was a critical mistake.

“EBDA” transactions occur through Opening Bidding, which is a separate auction where bids from *non-Google ad exchanges* compete. Ex. 56 (Declaration of [REDACTED]) ¶¶ 3-4. If an impression is transacted through Open Bidding, then it is not considered to be an AdX transaction. *Id.* ¶ 4. Despite recognizing that EBDA is distinct from AdX, Ex. 52 (Gans Rpt.) Rebuttal Rpt.) ¶ 605, the AdX market shares reported in Professor Gans’ Opening Report treated “EBDA” transactions as if they had occurred on AdX. Ex. 52 (Gans Rpt.) at 126 n.428; *see also* Ex. 51 (Gans Depo. Tr.) 123:14-19. When questioned about this issue, Professor Gans conceded that “[t]ransactions that are not AdX exchanges should not be counted as AdX exchanges,” Ex. 51 (Gans Depo. Tr.) 126:25-127:1, and agreed that the AdX market shares reported in his Opening Report “would [be] overstate[d]” if they were calculated “includ[ing] things ... that were not AdX.”

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*Id.* at 128:8-11.<sup>125</sup> Because Professor Gans erroneously attributes Open Bidding transactions to AdX, his Opening Report's calculations of AdX's market share are unreliable and should be excluded. *See, e.g., Moore v. Int'l Paint, L.L.C.*, 547 F.App'x 513, 516 (5th Cir. 2013) (affirming exclusion where "the universe of facts assumed by the expert differs frequently and substantially from the undisputed record evidence" and "the expert made numerous assumptions with no apparent underlying rationale"); *see also Hathaway*, 507 F.3d at 318 (affirming exclusion when expert could not "offer any specific factual support for the reliability of his initial assumptions"); *Guillory*, 95 F.3d at 1331 ("Expert evidence based on a fictitious set of facts is just as unreliable as evidence based upon no research at all.").

**2. Professor Gans' Rebuttal Report Ignores Impressions Transacted by Rival Ad Exchanges.**

After Professor Baye pointed out the flaws in the AdX market shares described in Professor Gans' Opening Report, Ex. 54 (Baye Rpt.) ¶¶ 320-26, Professor Gans presented entirely new AdX market share calculations in Figures 10, 11, and 12 of his Rebuttal Report. But those calculations rest on an equally serious mistake rendering Professor Gans' new opinion as unreliable and confusing for a jury as the old one: they cherry-pick only eight or nine ad exchanges to include in the denominator, while excluding dozens of others. Artificially reducing the denominator in this way results in an unreliable and overstated AdX market share of [REDACTED]. Ex. 53 (Gans

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<sup>125</sup> When Professor Baye recalculated AdX's market share without attributing EBDA transactions to AdX (but otherwise using Professor Gans' data and methodology), he found that AdX's market share was [REDACTED]. Ex. 54 (Baye Rpt.) ¶ 321, Exhibit 20, row [B]. Professor Gans never disputes these corrections. *See* Ex. 53 (Gans Rebuttal Rpt.) ¶¶ 433-437 & figs.24, 25; Ex. 51 (Gans Depo. Tr.) 129:20-130:12; *see also Domed Stadium Hotel, Inc. v. Holiday Inns, Inc.*, 732 F.2d 480, 489 (5th Cir. 1984) ("[A] defendant must have a market share of at least fifty percent before he can be guilty of monopolization.").

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Rebuttal Rpt.) ¶ 236-237 & fig.10; Ex. 55 (Baye Sur-Rebuttal Rpt.) ¶ 5 (correcting Gans’ analysis to show market share of [REDACTED]).

Professor Baye explained that there are at least “50 ad exchanges that transact Professor Gans’ narrow definition of display ads.” Ex. 54 (Baye Rpt.) ¶¶ 323. At his deposition, Professor Gans admitted that “there may have been” more than eight ad exchanges; that his Rebuttal Report did not account for the existence of ad exchanges other than those specifically mentioned; and that if it had, AdX’s share of the ad exchange market would be below [REDACTED]. Ex. 51 (Gans Depo. Tr.) 135:2-24, 138:4-10. Because Professor Gans effectively conceded that he cherry-picked data and inflated AdX’s market share,<sup>126</sup> his market-share opinions would mislead the jury and should be excluded. *See 360 Mortg. Grp., LLC v. Homebridge Fin. Servs., Inc.*, 2016 WL 6075566, at \*5 (W.D. Tex. Apr. 22, 2016) (excluding opinions where experts “simply cherry-picked facts to support their desired outcome”); *see also In re Onglyza (Saxagliptin) & Kombiglyze (Saxagliptin & Metformin) Prods. Liab. Litig.*, 93 F.4th 339, 347-48 (6th Cir. 2024) (affirming exclusion of expert testimony where the expert “cherry-picked data to bolster his case”); *E.E.O.C. v. Freeman*, 778 F.3d 463, 467-68 (4th Cir. 2015) (affirming exclusion of opinion where expert “omitted hundreds” of data points from his analysis, despite defendant having “produced complete information in discovery”); Wright & Miller, 29 Fed. Prac. & Proc. Evid. § 6268 (2d ed.) (“[Courts] should [consider] whether the expert ignored a significant portion of seemingly important data.... If an expert ‘cherry picks’ favorable data ... but ignores a significant quantity of

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<sup>126</sup> Professor Baye demonstrated the significant impact of Professor Gans’ error: accounting for the omitted ad exchanges reduces AdX’s market share by [REDACTED]. Ex. 55 (Baye Sur-Rebuttal Rpt.) ¶¶ 5-6 & Exhibit 1. Additionally, “[u]sing available information and standard economic techniques to approximate (a) unattributed volumes on DFP and (b) unattributed volumes on third-party ad servers” would further reduce AdX’s market share [REDACTED] a figure that is likely still overstated. *Id.* ¶¶ 6-8 & Figure 2.

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other important facts, the trial court would be justified in concluding that the expert's testimony is not based on sufficient facts or data.”).

**C. Professor Gans Improperly Opines on Google's Motive And Intent.**

Professor Gans offers numerous opinions about Google's motives and intent in pursuing certain conduct, including:

- On tying, that “Google's decision to contractually tie AdX and DFP was *intended* to reduce the threat posed by Header Bidding,” Ex. 52 (Gans Rpt.) ¶ 447, and that “*Google's objective* with this strategy was to control demand access to publishers' inventory.” *Id.* ¶ 428.
- On UPR, that “*Google's intent* with UPR was to increase transactions on AdX and reduce competitive pressure from rival exchanges,” *id.* ¶ 480, and that “*Google's intent* with UPR was to have publishers lower the price floors they set on AdX.” *Id.* ¶ 487.
- On DA/EDA, that “[Google's] actions were *primarily motivated by Google's desire* to maintain an information advantage over other exchanges.” *Id.* ¶ 549.
- On line item capping, about “*Google's motive* in imposing limits to the number of line items” and opining about “evidence demonstrating the *pretext of Google's justification and* its true anticompetitive *motives*.” *Id.* ¶ 646; *see also* Ex. 53 (Gans Rebuttal Rpt.) ¶ 370 (asserting that “the heart of this is the evidence regarding Google's intent”).
- On redacted auction data, about “*Google's true motivation* in redacting data for publishers,” Ex. 52 (Gans Rpt.) ¶ 688, and “*Google's sole intent* in making the changes to the DT files.” *Id.* ¶ 689.
- On Bernanke, that “*Google's intent* for Bernanke was to ensure GDN won more AdX auctions over rival buying tools.” *Id.* ¶ 736.
- On DRS, that “Google employed [DRS] to manipulate auction items in its own interests rather than the interests of its customers.” *Id.* ¶ 776.

All of these opinions, as well as Professor Gans' other opinions about Google's subjective intent and motivations, are improper topics for expert testimony and should be excluded. *See Greger*, 2021 WL 3855474, at \*9 (excluding expert testimony on defendant's “subjective intent, motives, or internal decision-making”); *Retractable Techs. Inc. v. Abbott Lab'ys, Inc.*, 2010 WL 11531436,

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at \*7 (E.D. Tex. June 18, 2010) (excluding expert opinions regarding the defendant corporation’s “state of mind, intentions, or knowledge”).

**XI. Conclusion**

For the foregoing reasons, the Court should exclude, in whole or in part, the proffered expert opinions of Dr. Weinberg, Mr. Andrien, Dr. DeRamus, Professor Chandler, Dr. Shafiq, Dr. Pathak, Professor Rudin, Dr. Somayaji, and Professor Gans. Google respectfully requests oral argument on its Omnibus Motion to Exclude Expert Testimony.

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Dated: November 18, 2024

Respectfully submitted,

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**CERTIFICATE OF CONFERENCE**

Pursuant to Local Rule CV-7(i), I certify that on November 15, 2024 at approximately 4:32 p.m., I spoke by telephone with Noah Heinz, counsel for the Plaintiff States, to confer with him about Defendant Google LLC's intention to file a motion to exclude, in whole or in part, the opinions and testimony of the following expert witnesses for the Plaintiff States: Jeffrey Andrien, John Chandler, Joshua Gans, David DeRamus, Parag Pathak, Cynthia Rudin, Zubair Shafiq, Anil Somayaji, and Matthew Weinberg.

I advised Mr. Heinz that the bases of the motion were Federal Rules of Evidence 401, 402, 403, and 702, as well as relevant case law, including case law providing that an opinion of an expert may be excluded when the expert provides evasive or unresponsive answers to questions about their opinions. As to the last ground, Mr. Heinz asked whether the basis for seeking the exclusion of the witness was the way the witness answered questions in deposition. I confirmed that it was.

Mr. Heinz then advised that Plaintiffs would not agree to withdraw any of the experts and that Plaintiffs opposed the motion.

/s/ Kathy D. Patrick

Kathy D. Patrick

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**CERTIFICATE OF SEALING**

I certify pursuant to Local Rule CV-5(a)(7)(B) that, on November 15, 2024, a motion to seal this document was filed, separately and immediately before this document was filed under seal.

/s/ Kathy D. Patrick  
Kathy D. Patrick

**CERTIFICATE OF SERVICE**

I certify that on November 18, 2024, this document was filed electronically in compliance with Local Rule CV-5(a) and notice was thereby served on all counsel who have consented to electronic service, per Local Rule CV-5(a)(3)(A). In addition, this sealed filing will be promptly served by email on counsel of record for all parties.

/s/ Kathy D. Patrick  
Kathy D. Patrick